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Improving the Quality of Public Open Spaces in Hama, Syria: an Investigation through the Social Spatial Approach

Iman Alsumsam

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Declaration

I hereby declare that this thesis has been composed by myself; that the following thesis is entirely my own work; and that no part of this thesis has been submitted for another degree or qualification.

Iman Alsumsam

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Abstract

The extensive literature on public open space illustrates that it is of great importance to the quality of life. This is particularly true in Syria where public open spaces play a critical role in the urban structure of cities and in the inhabitant's daily existence. There is published evidence that improving the quality of public open spaces requires a comprehensive analysis of these spaces in order to be able to evaluate their quality. This thesis is concerned with investigating and evaluating public open spaces in Hama, Syria both in terms of the quality of the spaces themselves and the process of creating and managing these spaces in order to offer suggestions for improving the quality of life in Hama through improving the quality of its spaces. The research strategy, the social spatial approach, involves understanding the investigative context as: (a) a social phenomenon, by exploring the residents' perceptions, professionals' perceptions and users' behaviour, (b) a spatial phenomenon, by exploring the physical and spatial structure of Hama. The research adopts a case study method choosing three parks as examples for their distinctive features, and a range of different qualitative and quantitative techniques are applied systematically to these parks and their wider context. These techniques comprised: a questionnaire survey with residents in Hama; observation and behavioural mapping in the parks; semi-structured interviews with professionals involved in the design and management process; land use and urban form surveys; space syntax applied at micro and macro scale; and a desk-top study of documents.

The findings of the evaluation illustrate that the qualities of the three selected parks could be enhanced. In addition, they show the there is scope for a participatory process of design and management to ensure that the final delivery of new parks and the development of existing ones meet the users' expectations. The research draws a number of conclusions, which are developed into a set of general recommendations. Two of the key suggestions are (a) the provision of good quality public facilities which meet residents' needs in the parks (b) the provision of training programmes by Hama City Council for those involved in the development and delivery process of public open spaces. Both are vital if the quality of the public open spaces is to be improved.

Dedication

بسم الله الرّحمن الرّحيم

In The Name of Allah, The Most Beneficent, The Most Merciful

I dedicate this piece of work to:

The Syrian People

My Beloved Family

My parents Abdul Kadir Alsumsam and Heyam Alnajjar

My husband, Monkiz Khasreen and my son and daughter, Homam and Mariam

My brothers and sisters Hazar, Hadia, Ahmad, Ayman and Mouhamed

My Parents-in-law Ahmad Khasreen and Raafat Khasreen

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Chapter 1 - Introduction

1.1. Background

Public spaces play a significant role in the life of cities everywhere, and there is an undeniable need for public spaces in cities to work effectively, despite the fact that the social and spatial configurations of cities vary considerably across the world (Madanipour, 2010). The literature on public space is therefore, now one of the most important and well-developed in urban design. (Francis, 2009). Many researchers, such as Whyte (1980), Gehl (1987, 2010), Carr et al. (1992), Cooper Marcus and Francis (1997), Shaftoe (2008) and Wooley (2003), have focused their research on highlighting the principles that underpin the creation of good public spaces which will attract a wide variety of people through their flexibility of use, diversity of building type and accessibility.

Successful public open spaces have to meet different perceptual, social, functional and physical criteria. Public open spaces provide opportunities for social interactions, including all kinds of personal, cultural and economic exchanges, and can provide liveable places that play a significant role in community identity. (Carmona et al., 2003). Jan Gehl clarifies this notion suggesting that new developments should take into account questions such as what kind of life we want here, what kind of spaces will be needed for this life, and finally, how can the buildings in this area be placed and formed to support these spaces and the life in this area? To sum up, the formula in new developments must prioritize life, then spaces, then buildings. (Gehl, 2010) Therefore, public spaces are the base for public life; when public spaces and public life are missing in a community, residents become isolated from each other (Carr and Francis, 1992).

Despite the intensive research on public spaces there is still a gap in the understanding of the public realm of cities. Francis (2009) raises the questions as to "why some public spaces are memorable while others easily forgotten? How can understandings of cultural diversity and publicness guide design and management of public open spaces? What physical forms are the most effective? How can designers, planners, and

managers best apply the lessons learned from the now extensive number of published case studies?" (p 404)

Thus, there is still a gap in the understanding of the meaning that people attach to public spaces and the expanding typology of spaces emerging today. Francis (2009) argues that understanding cultural diversity and publicness could guide the design and management of public spaces. He advocates that the research on public space should be more comprehensive in order to understand fully the meaning that public open spaces have for people and the role of urban design in shaping their future (Francis, 2009)

In practice, recent interest in making 'better public spaces' has been raised in the UK and Europe by certain governments and organizations, such as the British Government, through their support for the Commission for Architecture in the Built Environment [CABE], the built environment professions (such as the Urban Design Group) and the European Centre on Public Space, while in America this interest in better place-making is led by the Project for Public Spaces (PPS). These bodies provide various guides on 'place-making', which, in most cases, are based on what professional designers consider a good place. However, Shaftoe (2008) argues that fewer studies have been conducted on what users want from their public open spaces and what they perceive as good places to be in. (Shaftoe, 2008)

Public open spaces should be analysed and evaluated in terms of comprehensive frameworks of place and process. Madanipour (2010) argues that, "public spaces should be accessible places, developed through inclusive processes" (p. 1)

Accessibility is the key feature of public space, as without it places cannot become public. The flexibility, inclusiveness and accessibility of public open spaces will be undermined when they are conceived as enclosed places with fixed identities. Therefore, "public spaces should be produced on the basis of equality for all by being accessible places made and managed through inclusive processes." (Madanipour, 2010, p. 2) An inclusive process comprises a multidimensional and multi-agency process, which involves a large number of people and agencies and a dynamic process that can accommodate time and change. (Madanipour, 2010)

This research is about investigating and evaluating the public open spaces in Hama city, both in terms of the quality of the spaces (see Chapter 2) along with the process of creating and managing these spaces (see Chapter 4). However, more attention is given to the quality of public open space itself.

Hama is a historic Syrian city with a special identity and is situated on the Orontes River, which passes through its very heart. The city is famous for its ancient waterwheels the 'Norias'. Most of the public open spaces in the city are situated along and around the riverside and the main public park, 'Al Qalaa Park', is the site of a historic Castle with an incredible view to the Orontes River and the 'Norias'. Hama has a moderate climate which encourages people to enjoy outdoor activities and engage in public life in the city.

Similarly to any other city in the world, the public open spaces in Hama have an important role in the urban structure of the city and in people's life. Public open space in Hama is extremely valuable in terms of accommodating culture and social life, and it brings a liveliness and vitality to the city. People in Hama have their own culture, as they have a strong relationship with the Orontes River and the 'Norias' alongside it. However, public open spaces in Hama are not well used, which has raised concern about the quality of these spaces and thus motivated the researcher to investigate this phenomenon.

In the context of the Middle Eastern countries, Syria as one of them, there have been various studies (Aljabri, 2014, Mandeli, 2010, Haddad, 2009, and Alameddine, 2005) dealing with public open spaces in different locations and looking at them from diverse angles. These investigations were applied to different types of public open spaces, such as squares, plazas, parks, urban streets and open markets. However, research in Hama is still limited.

This research attempts to conduct the first in-depth study on the quality of public open spaces in Hama, and it will be an opportunity to connect Hama's case with the growing stream of studies on the qualities of public open space and will enrich the material available for international comparisons.

1.2. Research Focus

Public open space in Hama has been a concern to the researcher for some time. This concern started to develop while studying for a master's degree in Urban Design in Edinburgh, which was a great chance to develop a deeper understanding of the concept of urban public spaces and their qualities. During the writing of the dissertation the author examined various methods used in the literature for analysing and evaluating the quality of public open spaces, which enriched her knowledge about the topic.

The author's experience as an architect and urban designer, combined with the knowledge gained from the masters dissertation gave her the motivation to investigate and explore the context of public open spaces in her home city, Hama. In addition, there is a lack of research regarding public open spaces in Syria, and particularly in Hama. To the author's knowledge, there is no record of any research conducted to examine the quality of public open spaces in Hama.

The interests and concerns of the researcher include questions such as how people in Hama use and perceive public open spaces; what effect the spatial structure of the city has on people's perception and behaviour in public open spaces; how professionals perceive public open spaces, and what is the role of professionals in delivering new and managing existing spaces.

The researcher's initial observations of public open spaces in Hama, along with her personal experience, revealed that people in Hama have a strong relationship with their public open spaces, especially the ones alongside the Orontes River and with a view of the 'Norias'. They prefer to spend most of their time outdoors engaging in their city spaces, especially when weather conditions are inviting, for example in spring and summer. On summer evenings many people can be seen out of doors, sitting in the available green spaces along the riverside, in some of the parks, and roundabouts[1] (in

[1] In 2009 people were observed sitting on the available green spaces at the intersections of streets (roundabouts known as Dawar).

Arabic called Dawar), and on street pavements, despite the present quality of these spaces.

In the context of this research, the public open space focus is on parks. The author believes that the quality of the parks in Hama should be improved in a way to be able to accommodate the users and offer them an opportunity to engage in various activities, relax and enjoy nature. People in Hama, as observed by the author, are using other public open spaces, such as roundabouts and street pavements, as parks. The researcher therefore decided to investigate the quality of parks in Hama, and for this purpose three different parks were used as case studies.

1.3. Aim and Objectives

The overall aim of the research is to investigate the use of public open spaces in Hama city, Syria with the intention of improving the quality of life in the city through improving the quality of its spaces, and to provide more opportunity for people to engage in these spaces: in other words, to provide liveable spaces.

The key research question of this thesis is:

How can the quality of public open spaces in Hama be improved?

In order to meet that aim and answer the key research question five objectives have been set:

1. To understand the concept of public open space, its quality, and thus to provide a strategy that will help in evaluating and improving the quality of public open space.

2. To investigate the historical and natural contexts of Hama; to analyse the urban development and evolution of public open spaces in the city, and to identify the factors that affect the design and management processes of public open spaces in the city.

3. To explore the physical and spatial structure of the built environment in Hama.

4. To explore the social aspects, that is, people's perceptions of the built environment, their preferences and interpretations of public open spaces, and their behaviour in these spaces.

5. To evaluate the quality of the case study parks and understand the processes which generate and manage them, and then develop general principles for improving the quality of the parks and consequently other public open spaces in Hama.

1.4. Research Methodology

The research methodology relies on multiple evidentiary sources as a means to respond to the identified objectives of this research and to answer the key research question. The strategy, the social spatial approach, that involves investigating the spatial and social quality of public open spaces in Hama, underpins the research. It attempts to understand the investigative context as: (a) a social phenomenon, by exploring the residents' perceptions, professionals' perceptions and users' behaviours of space, (b) a spatial phenomenon, by exploring the physical and spatial structure of Hama.

This research uses the case study method as the main research method, to discover holistic insights about the complex nature of public open space in Hama and to explore its social and spatial attributes. Within that mixed qualitative and quantitative techniques are used for data collection and analysis of findings, some involve fieldwork and others are desk studies.

Three techniques are used to collect the social data: a questionnaire survey (to understand people's perception, preferences and interpretations of the built environment of Hama), semi-structured interviews (to reveal professionals' perceptions of public open spaces in the city) and observation and behavioural mapping (to understand people's behaviour in the case study parks). Land use and urban form surveys (to analyse the land use in the city and areas surrounding the case study parks and to investigate the urban form of areas surrounding the parks such as street layout, building height, size and shape) and space syntax (to explore the spatial structure of the city) are applied to reveal the spatial data.

Three parks are selected as case studies, and a range of different techniques are applied systematically to these parks. The use of these techniques entails in-depth analysis of the selected case studies within their wider context. The selection of the case studies has helped develop an in-depth understanding of the phenomenon, and therefore these findings may possibly be generalised.

A detailed explanation of the methodology is given in chapter 3. A summary of the methods used to achieve the identified objectives is illustrated in table 1.1.

Table 1.1 Meeting the research objectives according to chapter

Research objectives	**How the objectives are addressed**	**Discussed in:**
Obj. 1: To understand the concept of public open space, its quality, and methods to improve it, and thus to provide a strategy that will help in evaluating the quality of public open space.	Literature review	Chapter 2: Literature Review
Obj. 2: To investigate the historical and natural contexts of Hama; to analyse the urban development and the evolution of public open spaces in the city, and to identify the factors that affect the design and management of public open spaces in the city	Literature review and desk study	Chapter 4: Hama City and Its Context
	Semi-structured interviews	
Obj. 3: To explore the physical and spatial structure of the built environment in Hama	Land use survey	Chapter 5: The Spatial Study
	Urban form survey	
	Space Syntax technique	
Obj. 4: To explore the social aspects, that is, people's perceptions of the built environment, their preferences and interpretations of public	Questionnaire survey	Chapter 6 : The Social Study
	Semi-structured interviews	

open spaces; and their behaviours in these spaces.	Observation and behavioural mapping	
Obj. 5: To evaluate the quality of the case study parks and the processes which generate and manage them, and then develop general principles for improving the quality of the parks and consequently other public open spaces in Hama.	Analysis of the main findings	Chapter 7: Discussion

1.5. Thesis Structure

This thesis is divided into eight chapters, including this chapter, the introduction, which provides a general overview of the research. Chapter one includes the background and research focus exploring the reasons behind undertaking this study. It sets out the research aim, the key research question and objectives, the methodology and the structure of the thesis.

Chapter Two reviews theories, concepts and approaches to analysis the quality of public open space. At first, it reviews and discusses the concepts of public open space and illustrates its importance, then it provides an overview of the qualities of public open space; and then focuses on approaches to improve the quality of public open space. The chapter concludes with the development of a strategy, the social spatial approach, which is used to analyse and evaluate the quality of public open space in Hama.

Chapter Three introduces the research methodology employed in addressing the research objectives. It starts with a description of the strategic approach followed by the method which is used and finally the techniques which have been applied in the research.

Chapter Four deals with both the product and the process of public open spaces in Hama. Firstly, the chapter provides general overview of the context of Hama, outlining the development of the urban fabric of the city, and the evolution of its public open

spaces. Then, the chapter provides an overview of the governance process of public open spaces in the city.

Chapter Five discusses the findings of the spatial study. The chapter starts by discussing the results of the applied techniques, land use and urban form surveys and space syntax, at the city level, then, the chapter considers the findings at the level of the case studies.

Chapter Six is the second chapter of the empirical work, the social study. The chapter, firstly, discusses the residents' perception of public open spaces in Hama by analysing data from the open-ended questionnaire. Secondly, the chapter reviews users' behaviour in the case study parks by analysing data from observation and behavioural mapping surveys. Finally, it addresses professionals' perception of public open spaces in Hama by analysing data from the semi-structured interviews.

Chapter Seven links the main findings from the previous two chapters and evaluates the quality of the public open spaces in Hama according to the social and spatial studies results. At first it evaluates the quality of the three case studies, and then discusses the city and its responsibilities. Finally, the chapter discusses suggestions and general recommendations for improving the quality of public open spaces in Hama.

Chapter Eight, the conclusion, reviews the research, then summarises the main findings and discusses the achievement of research objectives and appropriateness of methods and techniques for the tasks undertaken. Finally some qualifications are highlighted before opportunities for further research are identified.

Chapter 2 - Literature Review

2.1. Introduction

This research is designed with the intention to examine ways of improving the quality of public open spaces in Hama. Therefore, the three key elements involved in this study are: the context of Hama city; the quality of public open space in the city; and improving the quality of that space. The context of Hama city is dealt with in chapter four, while this chapter deals with the other two elements.

This chapter reviews and discusses the concepts of public open space through three sections: the first illustrates its importance, the second provides an overview of the qualities of public open space, and the third focuses on approaches to improve the quality of public open space. From the reviewed literature in this chapter, it is clear that a comprehensive approach, including social and spatial aspects, is desirable as a basis for the analysis, evaluation and improvement of public open spaces.

2.2. Public Open Space

This research focuses mainly on the concept of public open spaces. This concept plays a significant role in society as such spaces are part of the daily life of both the city and its people. It is the outdoor platform that provides the city with perfect spaces for people to socialise, have fun, enjoy daily activities and celebrate on special occasions or just sit and relax away from the hassle of the city (Carr et al., 1992). These public open spaces can be found in a variety of forms such as streets, squares, parks, gardens, waterfronts, promenades and urban forests. The principal focus of this research is parks.

In order to approach the research objectives, the meaning of public open space is reviewed in this section with related concepts such as public realm and place, together with its importance to individuals and their society.

2.2.1. Public Open Space: Concepts and Definitions

The concept of 'public space', which is at the core of the research, is variously used in different disciplines including the social sciences, and planning and design practice, each of which has different understandings, conceptions and definitions of public space. The term has also various meanings in "different societies, places and times" (Smith and Low, 2006, p. 4).

Two different perspectives are provided by Brodin (2006), where he speaks about the metaphorical public space in contrast to the literal public space. The metaphorical public space, he argues, refers to a 'mental space' used for discussion and interaction amongst people and this is usually controlled by a particular political and philosophical framework (Brodin, 2006). On the other hand, there is the literal public space that refers to the physical space on which architects and geographers focus (Brodin, 2006). However, it can be argued that these two terms are interrelated, in the sense that each helps explain the other.

In an earlier study, Goodsell (2003) offers another approach in which he discusses the whole concept from three different perspectives. First, there is the 'political philosophy and democratic theory' where the main interest is in public discourse and a political arena. Second, he mentions 'urban planning and design', which deals with the physical environment, such as gardens, parks, streets and plazas. Finally, he discusses what he refers to as 'the political interpretation of architecture', which can be briefly explained as the interpretation of public buildings and the demonstration of political power in public spaces (Goodsell, 2003).

From the viewpoint of planners and urban designers, public space is "the common ground where people carry out the functional and ritual activities that bind a community, whether in the normal routines of daily life or periodic festivities" it is "the stage upon which the drama of communal life unfolds." (Carr et al., 1992, p xi 3)

Walzer defines public space as "space we share with strangers, people who aren't our relatives, friends, or work associates. It is the space for politics, commerce, sport;

space for peaceful coexistence and impersonal encounter. Its character expresses and also conditions our public life, civic culture, everyday discourse." (Walzer, 1986 as cited in Woolley, 2003, p. 4)

The term public open space has two significant components including 'public' and 'open' space. Originally, the term (public) came from Latin with the meaning of 'people'. This also may imply a relation between people and government. In this sense, public spaces can be looked at as open spaces for all people, while at same time being controlled by the state on their behalf (Madanipour, 2010). Similarly, Neal defines public spaces as "all areas that are open and accessible to all members of the public in a society, in principle though not necessarily in practice" (Neal, 2010, p.1).

By definition, the term 'public' is defined to be the opposite of 'private', which is associated with individual personal relationships. Public space is therefore defined as that which has no connection with the personal and private domain of the family. (Madanipour, 2010)

Open space can be described literally as a spatial feature of the landscape and townscape structure, which also helps in creating a unique character and identity of the city (Scottish Government, 2008). The expression 'open space' is, as recognised by the Scottish Government (2008), very wide and it extends to cover a variety of spaces that include any green areas or constructions, water features/fountains, pathways or any other features, including geological ones. These can be either inside the city or town or surrounding it. Thus, an urban space can be found in different forms like squares or shopping centres, in addition to any other areas with public access and civic function, whether they are paved or not. Some spaces, however, can combine both green and civic settings, although one of these would usually dominate the other (Scottish Government, 2008).

> "[…] Open space might be your yard, the park, the playfields or the garden down the street, the square at the town centre, the river corridor that runs through town, or the prairie at the edge. It might be 'open' but also complex and highly developed [engineered and built] to perform particular recreational, aesthetic, agricultural, practical, or ecological functions." (Girling and Kellett, 2005, p. 57).

Therefore, the word *open* informs the kind of space it is, and, as proposed by Tang (2004, p. 15), it "indicates all the outdoor spaces open to the sky with a natural climate".

From the above discussion, public open space can be defined as any designed outdoor area that is assigned for public use, which implies that access to such places is granted to all individuals for a variety of activities. In addition, such places can be controlled and run by the government on behalf of its people (Madanipour, 2010a). In other words, it is "space which allows all people to have access to it and to activities within it, which is controlled by a public agency, and which is provided and managed in the public interest" (Madanipour, 1996, p.148)

In reviewing the literature, there are other terms that are strongly associated with 'public space'. For instance, 'public realm' and 'public life', which are very interrelated themselves, and both stress the social dimensions of space. This can be seen clearly in the term 'public life', for instance, which is the mirror of the social dimensions of public spaces.

In the built environment context, public realm is defined in the Dictionary of Urbanism as: "The parts of a village, town or city [whether publicly or privately owned] that are available, without charge, for everyone to see, use and enjoy, including streets, squares and parks; all land to which everyone has ready, free and legal access 24 hours a day". (Cowan, 2005, p.312–314)

Francis Tibbalds (1992, p.1) regards the public realm as "all the parts of the urban fabric to which the public have physical and visual access. Thus, it extends from the streets, parks and squares of a town or city into the buildings which enclose and line them." In his definition of the public realm, he emphasises the social aspect associated with the spaces: "the most important part of our towns and cities. It is where the greatest amount of human contact and interaction takes place" (Tibbalds, 1992, p.1).

In a similar approach, Carmona et al. (2010, p.137) assign two dimensions to the 'public realm': the 'social' one and the 'physical' one, where the first is associated

with activities and the second with space. "The physical public realm means the series of spaces and settings – which may be publicly or privately owned – that support or facilitate public life and social interaction. The activities and events occurring there can be termed the socio-cultural public realm." By employing the term 'public realm', Carmona aims to refer to both the physical space as well as the social activities that take place in it.

Drawing on the work of Loukaitou-Siders and Banerjee (1998), Carmona et al. (2010, p.139) argue that the 'public realm' has three essential roles: political, social and educational. The political role is like an arena for political interaction and representation, the social role represents a space for individuals to meet and communicate, while the educational role can be seen as embedded in the social aspect, as it describes the process of social learning, self-development and knowledge sharing. The last two roles seem to be part and parcel of the social aspect of public spaces and those will be explored later on, in the section dealing with the social dimension (section 2.3.2).

The definitions provided above, by the Dictionary of Urbanism (2005) and by architects and urban designers, tend to conflate the concepts of 'public realm' and 'public space' and tend to lay the focus mainly on the physical dimensions of the 'public realm' rather than the social ones. On the other hand, other authors have been more precise and distinguish between these two concepts; the sociological dimension is underlined by many of these authors, including sociologists, architects, urban designers, and planners. Interestingly, some scholars even seem to ascribe more weight to the social aspect rather than the physical; in her definition of the term 'realm', Lofland (1998, p.11) describes realms as being "not geographically or physically rooted pieces of spaces". She clearly refers to the social element in order to define the public realm. Moreover, she defines it (public realm) as "the locus of a complex web of relationships" (ibid. p.51). In her approach, she claims that there are three types of realms: private, parochial and public. According to Lofland, the distinction between 'private' and 'public' is in terms of accessibility, where 'public' spaces are available for use by practically all individuals, whereas the 'private' ones are not. Furthermore, in her approach, she claims that, when they leave their private

realm, individuals move to enter a world of strangers without disclosing their points of views, cultural values or history.

The definitions of 'public space' and 'public realm' provided by Madanipour (2003, p.4) seem to be in line with Lofland's approach to 'public realm'. According to him, 'public space' is "that part of the physical environment which is associated with public meanings and functions". On the other hand, 'public realm' is seen to be more comprehensive, when he refers to it as "the entire range of places, people and activities that constitute the public dimension of human social life" (Madanipour, 2003, p.4). In his approach, he attempts to sum up the role and function of both the 'public space' and 'public realm', when he describes the latter as "a display of masks, and the public space the theatre stage in which the performance takes place" (Madanipour, 2003, p.135).

From the above discussion, it can be concluded that there is a difference between the two concepts of 'public space' and 'public realm'. However, they seem to have a lot in common, to the extent that they sometimes merge in some approaches and it is always the case that when explaining one of them, it is essential to use the other. In some approaches the distinction between the two is not clear enough, especially those provided by authors whose definitions appear to be based more on a design point of view. On the other hand, a clearer distinction between the two concepts can be found in other studies conducted by sociologists like Lofland. Similarly, planners and urban designers who deal with the matter from the sociological perspective also realise the difference and distinguish between the two.

In this research, the term 'public open spaces' reflects the two concepts of public space and realm reviewed above, in addition to Carr et al. (1992) and Tang's (2004) definitions, which refer to all outdoor spaces with public access, such as squares, streets, gardens, parks, plazas, where people can engage with the physical environment and each other, constituting urban social life. The term 'place' seems to be associated with the term 'space' in some of the literature reviewed, so the concept of 'place' is considered in the next sub-section, to reveal its relationship with 'space'.

2.2.1.a. Sense of Place

"The last 40 years have seen increasing interest in people's tie to, and conceptions of, places." (Carmona et al., 2010b, p. 120). This section reviews the concepts of place, its interaction with space and the way to conceive a 'sense of place'.

Some researchers, including Relph (1976), Canter (1977), Punter (1991), and Montgomery (1998), attempt to illustrate the vital role of the concept of place by likening it to a bridge through which environmental psychology is connected to social psychology. Moreover, Canter (1977) stresses the importance and usefulness of environmental psychological research because it does not ignore the construct of place within the role of social psychology. (Canter, 1977, cited in Alameddine, 2005).

Relph's book, Place and Placelessness (1976), was one of the first in the urban design field to focus on the psychological and experiential sense of place. Relph (1976, p. 8) argues that, "however, amorphous and intangible, whenever we feel or know space, there is typically an associated concept of place" (cited in Carmona, 2010, p. 120). Thus, for him, places are essentially centres of meaning constructed out of lived experience.

"By imbruing them with meaning, people, as individuals or as groups, change spaces into places. Some places are meaningful to people in groups or as a society or a nation as a whole. Other places may be especially meaningful for individuals" (Carmona, 2010, p. 120). In his book, "Whose Public Space?", Ali Madanipour (2010) made an attempt to distinguish between 'space' and 'place', arguing that 'space' is associated with an abstract or impersonal meaning, while 'place' is assigned value, meaning and interpretation (Madanipour, 2010a). He also, suggests that following Jacobs' (1961) book, The Death and Life of Great American Cities, all approaches, including his own, endeavour to tackle the changing of 'spaces' into 'places' from different perspectives.

It is suggested that in the concept of 'place' there is more stress on the emotional attachment and the sense of belonging in general. This seems to be reasonable enough as it can be argued that people tend to look for a sense of belonging to a particular

area or with groups of people who can be either in the same area or occupying different ones. Crang (1989, p.103) provides a similar argument by claiming that "[…] Places provide an anchor of shared experience between people and continuity over time" (cited in Carmona, 2010, p.120).

From the above discussion, it can be argued that it is the communication and interaction amongst the individuals and a given space that give that space a unique additional meaning, changing it into a place, so that it is no longer similar to any other space. Some scholars would still claim that this concept of place is much wider. Lynch (1960, p.6) defines 'identity of place' as that which provides "[…] Individuality or distinction from other places […] the basis for its recognition as a separable entity". This shows, according to Ralph, that a 'place' has a 'unique address' although it is not clarified how this can be identified. He claims that in order for a 'place identity' to be created, three basic elements must be there: the physical setting, activities and meanings (Carmona, 2010, p.121).

Relph (1976) argues that the elements of physical setting and that of the activities are quite understandable and relatively easy to recognize, but the element of meaning is much more difficult to understand. For example, it can be possible to recognize a city or a town by only buildings and physical objects. Similarly, a strictly objective observer of the activities of people within this physical context would probably notice their movement. However, the attitude towards these buildings and recognition of the activities will be completely different from the perspective of the individuals who actually experience these buildings and activities because they see them as beautiful or ugly, enjoyable, useful or hindrances: in other words, they are meaningful to them. (Carmona and Tiesdell, 2007, p.105)

"While place meanings are rooted in the physical setting and in activities, they are not a property of them but a property of 'human intentions and experiences' of those places." (Relph, 1976, cited in Carmona, 2010, p.120)

Drawing on Relph's work, Canter (1977), in 'The Psychology of Place', states that a place is the result of relationships between three components: activity, conceptions and physical attributes. He adds "we have not fully identified the place until we know

what behaviour is associated with, or is anticipated to be housed in it, what the physical parameters of the setting are, in addition the descriptions or conceptions, which people hold of that behaviour in that physical environment" (Canter, 1977, p. 159)

From the above, it can be said that the concept of 'place' is the result of the interaction of three essential components: the physical setting of the environment with all its details of size, shape, colour, etc., the activities taking place in that setting, and the conceptions, which refers to the perceptions and values that people ascribe to the physical settings and the activities shared there. To Canter, these elements are more like different aspects of place to be explored rather than independent interrelated constituents.

Canter points out that this model is of particular importance to researchers in certain fields, like planners and urban designers, simply because, he argues, "Designers are, officially, the modifiers and creators of physical form. But from the model we can see that their task is to manipulate the physical attributes in such a way as to draw upon, or create, the appropriate context for specifiable activities and conceptions." (1977, p. 163).

Punter (1991) and Montgomery (1998) adopt Relph's and Canter's approach to the concept of place and take it a step further and attempt to identify the sense of place in urban design thought. Montgomery (1998) clarifies the role urban design can play in developing and improving the 'sense' of a place in a diagram, as shown in Figure 2.1.

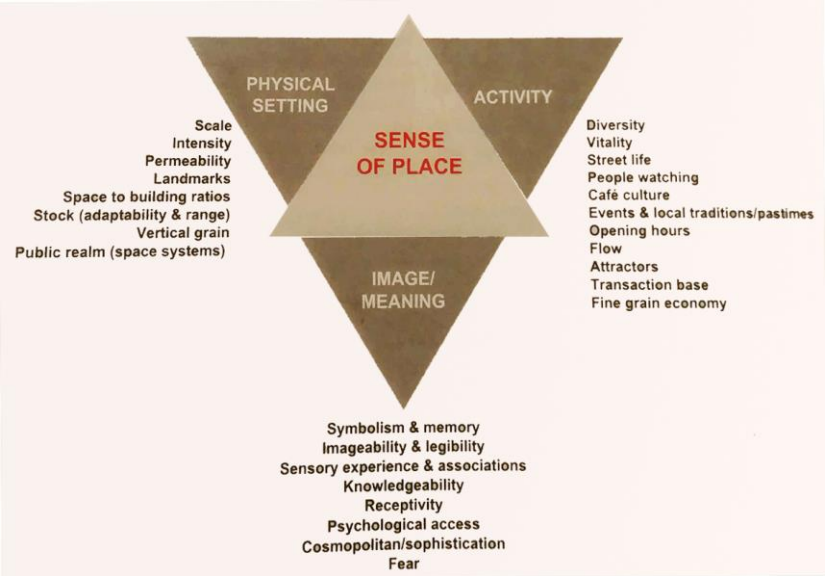


Figure 2.1 Sense of place (image adapted from Montgomery 1998). (Source: Carmona, 2010, p.122)

Different dimensions are identified in the study by Lang (1987, p. 77) in which he recognises physical, social, psychological and behavioural elements, where the physical aspect relates to the terrestrial or geographical setting, the social aspect relates to the communication and interaction amongst individuals, the psychological contains images that people have in their heads, and the behavioural one deals with individuals' responses.

The work of Alameddine (2005) regarding the role of public space in Beirut city echoes, largely, the components of the sense of place model as proposed by Canter (1977), Punter (1991) and Montgomery (1998). It distinguishes the physical, socio-cultural, perceptual and functional qualities of public space.

For the purpose of this research the model of the sense of place shown in Figure 2.1 is adopted to understand the various urban design qualities of public open space, which are discussed in detail later in section 2.3.

2.2.2. Importance of public open space

In the early 1960s, planning concepts, which were adopted from western ideas, and the introduction of traffic into the older parts of the city eliminated public life. In 1961, Jane Jacob's 'The Death and Life of Great American Cities' explored the continuous elimination of life in public spaces (Gehl, 2007). According to Gehl, the so-called 'public life oriented wave' started to gain its status in the following forty years (Gehl, 1987, 2006, 2007).

This can be explained by arguing that during these four decades, the importance of the role of public life was realised and understood, while the number of liveable and commonly used spaces grew substantially (Francis, 2003). This can be seen clearly in most recent studies, where the importance of public open spaces in the design of any town is underlined, and those spaces become essential in cities of all sizes, economic status, political environment or cultural structure (Madanipour, 2010b). A significant number of social scholars and designers, like William Whyte (1980, 1988, 1990), Kevin Lynch (1972, 1981), Clare Cooper Marcus (1970), Francis (1990), Barnes (1999), Jan Gehl (1987,1996) and Lyn Lofland (1998), stress the importance of flourishing and successful spaces, in their writings, when referring to good public space. (Francis, 2003 and Aljabri, 2014).

The importance and impact of public spaces has been growing and some would argue that public open space has come to occupy a central prominence in the developing countries (CABE Space, 2004, cited in Carmona, 2010a) as well as in the developed ones (Zetter and Butina-Watson, 2006, cited in Carmona, 2010a). One possible explanation for this growing importance of public spaces is the increasing realisation of the roles public spaces can play in achieving various goals on the levels of environment, economics, and society (Woolley et al., 2004, cited in Carmona, 2010a).

In a study of European, Asian, African and Latin American cities (2010a) Madanipour found that the economic and cultural differences between these cities

did not seem to change the fact that good quality and well used public spaces were seen to be an essential requirement in all of them.

Davis (1989) goes a step further and claims that public spaces can be used as an indicator of the level of the quality of life in a city, through measuring the quality of these spaces and the extent to which people use them and enjoy being in them. This idea appears to be advocated by earlier scholars, like John Ruskin, who suggests that "The measure of any great civilization is in its cities, and a measure of a city's greatness is to be found in the quality of its public spaces, its parks and its squares" (cited in Cowan, 2005, p.314).

When it comes to the evaluation of the role of public space and realm in the life of the city, some urban design authors have assigned more importance to the social element rather than to the accessibility of public spaces. Gehl (1987), for instance, demonstrated the essential role and function of public spaces in a city in providing the opportunity for individuals to meet, communicate, interact and share experiences. He claims that public spaces are expected to provide all social activities. These activities, he suggests, will help the space be full of life and meaning. Similarly, Ward Thompson argues that open spaces are required to provide places that are suitable for social activities and interaction. In this sense, public open spaces are viewed as "places to celebrate cultural diversity, to engage with natural processes and to conserve memories" (Ward Thompson, 2002, p.70).

Tibbalds (1992) adopts a similar approach, stressing that the public realm is the crucial component of the built environment by representing the meeting and interaction place. Therefore, he argues, it is vital to have good and active public spaces to guarantee a comfortable feeling and wellbeing. The importance of public spaces in providing a healthy life is stressed by many scholars. Ward Thompson (2002), for example, attempted to identify and underline the benefits of good public spaces on health aspect and she lays special focus on the necessity of having access to nature, arguing that absence of "natural relief within the urban environment" will eventually create health issues and, consequently, financial ones (Ward Thompson,

2002, p.65). It is worth mentioning, however, that access to nature can be achieved through views as well as access.

This point regarding accessibility raises an important issue in determining the criteria for whether a space is seen to be public (Carmona et al, 2003). Carmona et al. (2003) provide a detailed discussion of physical and socio-cultural public realms, stating that these are the ones accessible to all individuals and can be grouped as follows:

- External public spaces: these can be any lands that are not private property. Examples of external public spaces in cities/towns can be streets, squares and parks. In rural areas, these can be features such as forests, beaches, and rivers, where such spaces are available to everyone and represent the finest examples of public spaces.
- Internal public spaces: these refer to indoor public facilities like galleries, libraries, bus stations, etc.
- External and internal quasi-public spaces: despite the fact that such spaces are owned and run by individuals, they are still regarded as public spaces. Examples of such spaces can be: universities, shopping centres or cinemas, where access is controlled and organised by the owners.

It is worth mentioning that, this research concentrates on public open spaces, therefore internal public space and the quasi-public space are not within its scope.

Project for Public Space (PPS) (2000) claims that successful public spaces in cities play a significant role in building a strong sense of belonging to the community amongst individuals. Carr et al. (1992) also claim that public spaces can be seen as a means to represent and pass on cultural values and concepts. Therefore, public spaces can be looked at as defining and preserving cultural values and helping individuals in satisfying human rights.

It can be seen from the discussion above that public open space has an indispensable role in any city structure, as it has a multiple impact on the social, physical, perceptual and functional urban design qualities.

2.2.3. Summary

Public open space is important in any city, and the quality of life in any city can be measured by the quality of its public spaces. Through reviewing the definitions of public open space, its importance and the concept of place, this section has revealed the multi- functional aspects embedded in the concept of public open space.

Public open spaces are understood as outdoor spaces accessible to the public, including squares, plazas, streets, gardens, and parks, where people can engage in the variety of activities taking place within these spaces, thus establishing social life. They can also be controlled and managed by the government on behalf of the people. Thus, people's interaction with and engagement in a given space gives that space a unique meaning changing it into a 'place'. The concept of place is, therefore, the result of the interaction of three key elements: the physical settings, the activities taking place in those settings, and the conceptions (the perception, meaning and values). The model of the sense of place proposed by Montgomery (1998) (Figure 2.1), is valuable in understanding the various urban design qualities of public open space.

An awareness of the crucial role of public open space has been growing in both the developed and developing countries due to the realization of the role it can play at various environmental, economic, and social levels. Successful good quality and well-used public open space is seen to be an essential requirement in any city around the world, in providing a healthy life for its people. Public open space plays a significant role in providing social activities and interaction and in representing cultural values, which, in turn, help to produce a space full of social life and meaning.

Therefore, public open spaces have a multiple impact on the social, physical, perceptual and functional qualities of urban design, which are reviewed and discussed in the next section, 2.3.

2.3. Qualities of Public Open Space

This section is structured around four principal urban design qualities of public open space, namely, physical, social, perceptual, and functional qualities. These qualities emerged from the discussions regarding the definitions of public open space, its importance and the concept of place, discussed in section 2.2. They correspond mainly with the definitions of Carr et al. (1992), Carmona et al. (2010b) and Madanipour (2003), in addition to the model of the sense of place presented in Figure 2.1. These qualities are reviewed in this research because there is a need to understand what they are, and what they consist of, in order to use them as criteria to analyse and assess spaces. The following sub-sections discuss each quality in detail.

2.3.1. Physical Dimensions

In this study the qualities of public open space are used to explore the physical and spatial elements of the built environment, and their influence on people's perception, behaviours and needs in public open space.

Many researchers and urban designers identify the physical structure of the urban fabric as urban morphology (Conzen, 1960, Clark, 1985, Madanipour 1996, and Carmona et al., 2003). From a morphological point of view, the analysis of public open spaces is to be based on its morphological characteristics such as lay out, urban form and the shape of settlements (Carmona et al., 2003).

Carmona et al. (2003), argue that settlements can be looked at through several key elements, such as land use, building structures, plot pattern and street pattern. These elements are also considered by Conzen (1960) as the most important ones. Similarly, Madanipour (1996) defines urban morphology as "the systematic study of the form, shape, plan, structure and function of the built fabric of town and cities, and the origin and the way in which this fabric has evolved over time" (Madanipour, 1996, p.53), while Kim (2012) suggests that urban morphology is inherently about form.

The stability of these elements was the main focus of Conzen (1960) where he notes that land uses are seen as temporary in contrast with the key elements of settlement:

building structures, plot pattern and street pattern. It is argued that additional uses would usually entail further development eventually ending up with new buildings, merging or in less likely cases to subdivisions and subsequent modifications in street patterns. Displaced land uses, on the other hand, would often move to available buildings in other older areas rather than going through redevelopment, adaptation or conversion. (Carmona et al., 2010b, p.78)

Street pattern is defined by Carmona et al. as "the layout of urban blocks and, between them, the public space/movement channels or 'public space network'. The blocks define the space, or the spaces define the blocks. The ground plan of most settlements can be seen as a series of overlays from different ages." (Carmona et al., 2003, p.63). Carmona et al. argue that gridded permeable street structures and block patterns seem to be desirable in contemporary designs. Strong, active and adaptable designs are highly required. They also suggest that priority should be assigned to getting a highly permeable layout in the first place and after that different means of design or management can be employed to achieve segregation where required. This is because it is not possible to go in the opposite direction i.e., moving from segregated design into a permeable integrating one. For instance, in order to secure a permeable layout, no streets should end in dead ends but rather should lead somewhere like other streets or spaces which will help create permeable grids (Carmona et al., 2003).

The above review reveals that urban morphology has various definitions and consists of different elements; however, urban form emerges as a key element.

2.3.1.a. Urban Form

Urban form has been defined from many different points of view, because it has been studies by a variety of disciplines. It has been defined as the geometry of three components: street plan or layout, architectural style of buildings and their design, and land use. (Madanipour, 1996).

Madanipour (1996) defines urban form as existing in two dimensions and also three dimensions; the two dimension perspective includes the physical extent of the urban

form and its pattern and various areas while the three dimension perspective describes the sculptural expression of heights, shapes and skyline of the urban form. Kim (2012), during his analyses of a variety of studies which deal with urban form, identifies essential aspects of urban form as shape, size, pattern, layout and structure. To Bourne (1982), urban form in a city is the space patterns or organisation of individual elements, like built environment, buildings, land uses, social group, economic activities, and public institutions. (Bourne, 1982 cited in Madanipour, 1996). In the field of urban design, Shirvani (1985) defines the physical elements of urban form in more detail, to include land use, building form, circulation, open space, pedestrian ways, activity support, and signage. (Shirvani, 1985, cited in Madanipour, 1996).

Madanipour (1996) argues that this diversity of definitions of urban form by scholars is mainly because urban form has both social and physical dimensions. He points out that these two dimensions have a dynamic relationship. A variety of social procedures creates and tunes the physical structure. The physical structure, in turn, may play a role in controlling these social procedures.

The social dimension of urban forms describes the spatial arrangement together with the qualities of individuals that build, use, and assign importance to such urban forms. On the other hand, the physical dimension refers to the urban fabric as a grouping of built spatial units. "The study of form can, at different scales and in two and three dimensions, refer to single building, blocks, urban quarters, and the whole urban fabric as the combination of these physical component parts. It is also possible to focus on the space between these parts when studying the pattern of streets and squares." (Madanipour, 1996, p.33)

Space syntax, the socio-spatial theory, was first proposed by Hillier and Hanson (1984) in their book 'The Social Logic of Space', which deals with understanding how people interact in spaces and how spaces are generated by the social environment. Hillier and Hanson (1984) identify space as an area which contains social behaviour, because it offers the opportunity to move in and meet others, and therefore, to generate social relationships. They argue that spatial structure has a

strong influence on pedestrian movement, much more so than the physical structure. Spaces with high accessibility and connectivity to surrounding places are likely to be more appealing to social interaction, while segregated and closed spaces are more likely to discourage social life in an area. Hillier and Hanson (1984) understand the social logic of space as the interaction between space and society; they conceive it as "a theory of how the spatial pattern can and does in itself carry social information and content." (Hillier and Hanson, 1984, p. 3). Hillier believes that the spatial layout or structure has great impact on human social activities and behaviour. (Hillier, 1996)

Space syntax is the socio-spatial theory in which space is regarded as a social product that is entrenched in a social logic rather than neutral physical entity; therefore it portrays space as an important aspect of social life. Hillier's perspective of the social logic of space has been widely used by many architects, urban designers and planners as a method to analyse the spatial structure of built environments.

It is proposed that urban forms can be described from two dimensions; space imageability and legibility (Clemente et al., 2005 cited in Forsyth et al., 2010). Imageability refers to the general perception of the space by its users where a well imageable space is described as a well-formed space with various well-defined parts that can be identified easily by the usual users (Lynch, 1960). On the other hand, legibility denotes the distinguishing structure of the space as realised by any observer. Moreover, it describes the unique tactical physical features that would shape the understanding of that space. In this sense it can be looked at as the interpretation of the user of the space. These concepts are seen to be behind the later urban environment examination of the city. According to Lynch's theory, legibility can be examined through essential five physical elements: paths, edges, districts, nodes and landmarks, which "seem astonishingly similar in some very diverse cultures and places" (Lynch, 1984, p.249).

Paths: these can be found in a variety of forms like streets, pathways, canals, railroads, etc. through which the observer uses regularly, rarely or potentially.

Edges: these are not meant to be used for movement but rather they are linear layouts that form boundaries between two phases and linear breaks in continuity like shores, railroad cuts, walls, etc.

Districts: these are units in the city that range in size from medium to large that are considered remarkable with common distinguishing characteristics.

Landmarks: they are like an external reference points that the observer will not go inside and these are physical constructions with easy definitions like mountains, signs, stores or buildings.

Nodes: these are area with strategic importance and prominence when moving through a city like main junctions, transportation breaks spots, crossings, spots marking change from certain structure to another. Alternatively, nodes can be made through extensive employment of physical character like a hangout in the corner of a street or sheltered squares (Lynch, 1960).

Physical Characteristics

Physical characteristics such as: shape, size, furniture, natural elements and materials are all constituents of urban form, and determine its appearance. Determining the best size for public spaces can be difficult because this is related to both context and location that would differ, in turn, from one place to another. In this way, it is claimed that smaller places that include 'breathe out' layouts to the surroundings are valuable (Shaftoe, 2008).

Lynch (1971) proposes that an ideal size for a small space should be between 12 and 24m along each side, and about 100m for a large space. Gehl (1987) suggests a similar maximum and advises that a public open space should not exceed a dimension between 70m to 100m, as this is the maximum distance for seeing events. Gehl (2003) points out that "the maximum distance for being able to distinguish facial expressions is about 25m" (Shaftoe, 2008, p.74), while Abley advises that the maximum distance for seeing any human movement is 135m (Abley and Hill, 2004 cited in Shaftoe, 2008). Llewelyn and Davies (2004) suggest that distances of

between 18-100m in open space cross-section have been considered optimal (Llewelyn-Davies, 2004).

Shape is of no less importance, in this context. However, different scholars hold different views about whether it should be formal or organic. After all, when it comes to the size and shape of the place, it is the purpose of the space that would play the main role in deciding on them. Generally, size of a public space is expected to be comfortable enough to accommodate its users. For instance, Gehl as mentioned above suggests dimensions to be 70m to 100m with a preference for rectangular shapes (Gehl, 1987). Shaftoe (2008) suggests that using curves and bends in the design of public spaces provides the sense of intrigue and curiosity to explore what lies round corners. He claims that this was the basis on which Gordon Cullen's Townscape (1961) depended on in order to explain that, in a successful design, different areas of the town should be revealed in a sequence rather than all at the same time. The third dimension is important in urban form, as argued by Madanipour (1996) and Gehl (1987) and others, as height should be appropriate to the surrounding buildings and should avoid overshadowing and overlooking.

Shaftoe (2008) points out that good quality materials are preferable in successful public spaces, since well-used spaces undergo a lot of wear and tear, and using high quality, durable material will save money in the long term. In addition he suggests the use of intriguing, assorted materials in the form of attractive colours and layouts on vertical surfaces.

Sitting places in public spaces are essential elements for people's use. Whyte argues that sitting places require careful planning, otherwise people will never use them (Whyte, 1980). Plenty of good quality sitting places are preferable in any public space and they should not necessarily be formal fixed benches (Shaftoe, 2008). Whyte (1980) introduces the idea of movable chairs, which can be helpful in widening choice, for example, to move into the sun, out of it, and to gather in groups.

Incorporation of natural elements such as plants, trees and water in public spaces helps them to work well (Shaftoe, 2008). It is argued that among the most important ones are water features, trees and woody vegetation (Schroeder and Anderson, 1984).

Kaplan and Kaplan (1989) point out that trees and greenery are aesthetically pleasing and psychologically important for most people in public spaces.

It is claimed that water features occupy a prominent status when it comes to attracting people and tempting them to spend more time in public spaces (Whyte, 1990). When exploring the reasons why water features are considered to be highly desirable, it is found that the noise they make is pleasing in itself because it reduces the street and traffic noise and replaces it with a cooling environment not to mention the fact that they enrich the space with a vertical dimension (Corbett, 2004). Of course, this element of calming noise should be well designed and controlled so that it does not change into a negative distractive one that affects conversations (Whyte, 1990).

2.3.2. Social Dimension

Most recent studies of the built environment and human behaviour emphasise that social factors are important in understanding and predicting the interaction patterns of people with the environment. Carmona et al. (2010b) point out that understanding the relationship between people (society) and their environment (space) is an essential component in urban design. They explain that the relationship between people and their environment is best conceived as "a continuous two-way process in which people create and modify spaces while at the same time being influenced in various ways by those spaces" (Carmona et al., 2010b, p. 133).

The relationship between culture and environment is influenced by the way people are continuously stimulated to decide on certain means to establish distinctive socio-cultural contexts. Urban spaces are better perceived through understanding the local socio-cultural contexts and the cultural differences that shaped them (Carmona et al., 2003).

Culturally, public space often symbolizes a community and its larger society, Francis states that "public spaces are the common ground where public culture was expressed

and community life developed, reflecting the users, their private beliefs and public values" (Francis, 1987, cited in Madanipour, 2010, p. 173)

It can be said that, in any environment, the choices people make are influenced by both society and culture, where society can be looked at as a group of people in a certain area where there is mutual dependency, systematic interaction and a unique culture and institutions. Culture is probably best understood in an anthropological sense as a "particular way of life, which expresses certain meaning and values not only on art and learning, but also institutions and ordinary behaviour" (Williams 1961, p. 41 cited in Carmona et al., 2010b, p.134).

Social relationships rely on social stimulation and on response, which in tum becomes the stimulation for another response (Porteous, 1977). "Beliefs, attitudes, preferences, and other personality attributes derive from the individual alone, but are largely colored by his experiences as a member of a family, ethnic, social class, cultural, national, and life style groups." (Porteous, 1977, p. 206-223)

Porteous and Lang both agree with the description of the individual as a member of the social system. Lang (1987) describes the social system as comprising a group of individuals who are working together on a common basis, directly or indirectly, in order to meet specific needs. The environment of any individual consists of a group of social systems where, according to Lang, all members of the social system comply with the rules of that system.

In line with the above discussion, the presence of people in public open space, their social interaction and public life, is affected by the feeling of safety and security. Gehl's studies have shown that there is a link between safety and security and the use of public space, and its liveability. (Gehl, 2010) Consequently, social interaction; sociability and public life; and safety and security are discussed further, in order to enhance understanding of the social dimension of public open space.

2.3.2.a. Social Interaction

According to Carr et al. (1995), public space has an important role in providing meaning to people's lives in the sense that it provides the environment for every day casual meeting and interaction. Behrens and Watson (1996, p.208) argue that the main role of public spaces is to accommodate social activities and interaction. Moreover, they are meant to represent additional spaces to overcrowded individual dwellings through offering a recreational, private and relaxing environment and to strengthen the relationship between public spaces and commercial activities. In fact, Lang (1987) argues that by accommodating people's social needs, in addition to providing them with the sense of independency, which is usually achieved with the presence of privacy, it is more likely for social interactions to be smooth and successful.

In some cases, places can be deemed to be perplexing, in the sense that it is not clear if they are private or public. Such ambiguous places can threaten to undermine social interactions. This is because the individuals do not feel they are in control of the interaction and cannot direct it the way they want. Lang, for instance, suggests that interaction can be influenced by the physical distance between individuals, arguing that by the increase of this distance, there will be a decrease in the amount of information they can exchange on many levels, such as the visual, olfactory, thermal and kinaesthetic, in addition to the subsequent need of the individual to raise their voices in order to keep the interaction going. Moreover, although an increase in distance will mean an equal increase in individuals' privacy, there will be a consequent decrease in the privacy of the interaction. Therefore, Lang holds that interaction is essential in maintaining relationships amongst individuals, which is, in turn, crucial in providing individuals with the sense of affiliation and belonging, which represents a basic need (Lang, 1987).

Alexander (1972) explains that the primary relationship between individuals requires regular and repeated informal meetings in order to develop, leading the individuals to become intimate. He also suggests that interaction among people with different cultures and backgrounds helps to improve the attitude groups might have towards

each other. Kostof (1999, p.123) distinguishes two dimensions of the social use of public spaces:

Familiarity and chance encounters. People tend to go to public places like parks and squares to meet their friends or colleagues but, at the same time, they meet and interact with other new people for the first time and can do unpredictable things together. However, certain activities can be seen as unacceptable by some individuals, therefore, a basic rule in public spaces is that the individual does have the right not to interact: "The charter of public places is freedom of action and the right to stay inactive." Kostof (1999, p.123)

Ritual aspects. Public places may be shared with different individuals belonging to different communities and, therefore, different communal activities can take place there. Consequently, such places will have the evidence of the shared record of accomplishment and rituals of the community.

2.3.2.b. Sociability and Public Life

It can be argued that it is the need of individuals to establish the sense of affiliation and interaction that stimulates them to socialise with other individuals. The affiliation gathers individuals through participating in a social system that is supportive enough so that they achieve comfort on the psychological level (Lang, 1994). There is also a connection between sociability and the public life of a place, which will be further discussed later in this section. When public places or urban environments lack certain essential elements like comfort, use or physical facilities, sociability in such public spaces will be negatively affected, because sociability prospers with the availability of its essential requirements, including physical amenities, activities and safety (Lang, 1994 and Gehl, 2010)

People's priority is always to secure their basic needs,[2] like security and survival. Once these needs are achieved, individuals will start to pursue the sense of belonging,

[2] Lang (1987) classified human needs into basic needs and cognitive and aesthetics needs, which are discussed in more detail in the functional quality sub-section 2.3.4.

in the sense of becoming part of larger group(s). In doing so, they aim to enjoy affection, support and identity (Lang, 1994). Taking into consideration the differences in the nature of groups and individuals, affiliation can be attained in different forms, but it is essential, for this purpose, to encourage people to gather in public settings. This sense of belonging can also be seen in the form of a growing relationship between the individual and the place. When it comes to design, however, it is important for designers not to presume any connection between the design of the public setting and the way people might interact in it. That is to say, the design cannot impose certain patterns of behaviour on its own.

One important concept addressed in this research is the notion of public life, which is related to sociability in public spaces. Public life involves bonding different and diverse people together for good or bad purposes. It also defines people's roles in the community in order to become members of groups to make social or political statements. People can discover new things and learn from others (Carr and Lynch, 1968).

The characteristics of the setting, like the culture of the participants, the different types of activities they share or any set times for such activities, determine, to a large extent, the character of the public life in public space. Public life is said to represent a resort away from the stress of daily life, where individuals can enjoy a time of joy, relaxation, and recreation along with socialisation (Gehl, 1996, 2013). In this sense, public life can be seen as gathering different people from different backgrounds together and creating a unique realm where they can freely express themselves. Therefore, public life is an essential cornerstone in the development of public open spaces, in the sense that the different components contributing to creating public life will help provide a better understanding of the requirements of public spaces. These components are: the environmental characteristics of the public space; socio-cultural characteristics of the community; the functional and physical characteristics of public spaces; the political and economic systems; and the recreational and health needs of a society. For instance, outdoor public life with its comfort and advantages can be affected by the surrounding environmental nature. In warm areas, for example, it is found that public life is more dynamic. This is, however, associated with the level of

individual's acceptance of the climate, in addition to the availability of amenities to accommodate such a climate. Moreover, through reducing the impact of tough built structures, natural elements can be seen as highly positive in strengthening public life by offering a hiding place from the stresses of everyday life and tempting individuals to have a rest. From this perspective, these natural elements are capable of offering relaxation, pleasant experiences and restorative qualities for people (Kaplan and Kaplan, 1989).

The socio-cultural characteristics of the community, that is, the social values and beliefs of people, influence the way they interact and socialize in public spaces. Another factor is the presence of shared meanings in public spaces, determined by cultural and historical events that encourage a sense of belonging and participation in the community in the public space.

There is said to be a balance between the public realm and the private one. This balance is influenced by the community's size and diversity and the nature of the community, which can shape the public life in the society (Carr and Francis, 1992).

Criminal activity has a negative impact on the public life of the city. Designers should, therefore take safety into consideration when shaping and arranging public spaces. It is claimed that functional features have an important role in determining the number and quality of individuals attracted to a certain setting, where these functional characteristics can encourage or discourage interaction. Thus, the physical structure of a setting can affect the nature of public life. (Gehl, 1996 and Whyte, 1980)

Many scholars argue that there is a range of factors that can have a vital influence in encouraging or limiting public life. For instance, street conditions can have a positive or negative effect in attracting people and in vehicle use. According to Appleyard (1981), public life is negatively affected when vehicles are extensively present in streets. Similarly, the socio-political systems can play an important role in the possibility of getting people to gather in public places and in setting the limit for freedom of expression. Another factor can be the economic one where a healthy economy is essential for the public places to be available in the first place as well as

in the development and maintenance of these places. This will have a direct impact in developing new places, which would, in turn, tempt more users and activities. In brief, it can be claimed that a healthy society with healthy characteristics is more likely to attract people to use public spaces. (Carr and Francis, 1992).

Social public spaces are generally filled with people. This people presence in public spaces also attracts other people, which suggests that what attracts people the most to public open spaces is the presence of other people. Therefore, the best-used spaces are the sociable ones with a higher diversity of people, more people engaged in groups, in couples and more people meeting people (Gehl, 2010). Those who visit public spaces alone also prefer to frequent the liveable ones (Whyte, 1980).

It is claimed that the presence of women, different facilities like monuments, stairs, water features, are common factors in the majority of liveable public open spaces, as such features are said to attract people to visit, spend time, and socialise. Another factor is feeling safe. The importance of other factors like the climatic comfort, and the availability of mixed activities with the presence of large numbers of people are also stressed. By having visually and aesthetically pleasing parks, squares and plazas, the possibility of achieving social places will increase. However, this condition might not be enough to secure complete satisfaction. Some other details can have a considerable influence on the social life and the probability for people to gather there, like the size and number of seating spaces and their comfort (Gehl, 2010).

In addition, some external factors can help attract individuals to a public space. These can be in the form of events, special activities, open street shows and arts. Whyte defines this ability as ‘triangulation’, which is: “The process by which some external stimulus provides a linkage between people and prompts strangers to talk to each other as though they were not.” (Whyte, 1980 p.94). Such a linkage can be a physical one, like a beautiful view, or an interesting activity that aims to stimulate individuals to converse and interact.

It is essential that public open spaces provide the opportunity for people to meet and interact, where the extent to which people are involved will set the level of interaction. One important factor in people’s participation is the nature and

characteristics of the public space. This is particularly important in the sense that understanding how social interactions take place in public open spaces will help provide clues regarding the physical and functional conditions that can make social contact more attractive.

2.3.2.c. Safety and Security

Safety and security are major factors that affect the presence of people in space and can therefore contribute to liveable public open space (Copper Marcus and Francis, 1998; Gehl, 2010). A feeling of insecurity might be caused by a fear of both crime and traffic. A public space with a high level of pedestrianisation is perceived as one that is safe (Corbett, 2004 and Özer and Kubat, 2007). Safety from crime is also important to encourage users to use a space.

Madanipour (1996, p.80) claims that the more anonymous the city is, the higher the crime level will be, which will lead, in turn, to a negative effect on public life. To Carr et al. (1992), the feeling that the individual is safe, together with his or her belongings, is referred to as the sense of security; they stress that it is a common issue to fear crime, which actually does happen in some public spaces, and makes such spaces less attractive and comfortable. They also found that this sense of insecurity can be a main reason preventing people from using public spaces, especially in the case of women.

Peters (2010) argues that women and children can be regarded as most vulnerable and, therefore, they are more likely to be subject to threats of potential offences in public spaces. In fact, there have been many studies that surveyed the feelings of women in public spaces in different cities in the UK. The results showed that in Woolwich, 65% of women had the fear of being attacked during the night, while in Edinburgh 36% expressed their fear of being robbed in daytime (Peters, 2010) Results were similar in other twelve cities and town across the UK. Dealing with such problems cannot be confined to more or better police procedures, but rather achieved through “a genuine choice of activities, entertainment and places where women can meet in towns and cities at night, and provision for children where necessary” (Worpole 1992 p.65). Madanipour also believes that having more

activities, entertainment, and children's supervision are more effective procedures than increasing policing in order to ensure a feeling of safety in public spaces (Madanipour 1996).

Özer and Kubat (2007) support the above argument, claiming that people feel safer in public places when more people are present. They also argue that fear can be reduced significantly through the design of public spaces. For example, people tend to change their route just to avoid passing through scary areas, especially when they are alone. They avoid dark paths, long alleys, deserted places, poorly lit streets, empty parks or thick forests, because of the fear of crime (Hutchings, 1994). Therefore, fear, in such cases, can be seen as related to the physical dimension of the space (Özer and Kubat, 2007).

There is a temptation to obtain privacy or retreat in hidden places but, with this temptation, there comes the feeling of insecurity. For instances, places with barriers or vision obstruction raise serious concerns regarding safety, a matter which is noted by Hillier (1988) through his notion of 'convex space' which refers to spaces that have no hidden corners.

There are already some techniques and procedures in place in order to achieve security and safety in public spaces, such as having pedestrian malls or using security guards and CCTV. It is claimed that separating pedestrians from traffic, as in the case of pedestrian malls, makes it easier to feel comfortable. However, it has been found that this is likely to increase safety concerns, especially at quiet times (Carr et al., 1992). Similarly, Lang (1987) notes that security should be attained by different means that allow individuals to feel not monitored, but safe and confident.

Through their observations, Jane Jacobs (1961) and Oscar Newman (1973) noted that the level of crime was considerably less in environments where there was a high level of interaction among individuals on the local level and they ascribed this to the natural social commitment, where people care more for each other, thus reducing the sense of alienation. On the other hand, both Jacobs (1961) and Newman (1973) warn that these hypotheses cannot be taken for granted, but rather should be dealt with cautiously. This is because, they noted that there were some places with a high level

of interaction but at the same time with high levels of crime. They argue that this could be because there are no clear territorial patterns, but this is mainly due to cultural and social environment of the individuals and not because of the physical one (Jacobs, 1961; Newman, 1973).

According to Hillier and Hanson (1984), the notion of territoriality introduced by Newman reduces the encounter rate, encourages an increase in crime rates and leads to social segregation. Hillier highlights the importance of the integration of public spaces. He argues that integrated spaces, with high accessibility, have greater social life, and therefore, less crime (Hillier, 1999)

A considerable number of architects, planners and designers routinely use Hillier's perspective of the social logic of space as a way of obtaining an analysis of the structure of the space in the built environment. This perspective and its application to the structure of the city of Hama forms the central theme of Chapter Five.

2.3.3. Perceptual Dimensions

Consideration of the perceptual dimension has developed since the early 1960s, focusing on people's perception of their urban environment, how they value, perceive, draw meaning from, and add meaning to the urban environment. We affect the environment and are affected by it, and for this interaction to happen we have to perceive this environment. We perceive the world around us through all our senses (vision, hearing, smell and touch), which offer clues about our world (Carmona et al., 2003). Perception is the psychological function that enables us to interpret environmental stimuli, which are gathered and processed by senses. Therefore, it is the most fundamental and direct mechanism that links people to their immediate sensory experience of the environment (Rapoport, 1977). Eysenck (1984) argues that "the process of interpreting the sensory information is complex and involves a considerable variety of processing mechanisms".

People's perceptions of environmental quality are affected by their physical environment, particularly through the meaning they attach to it. Although people share common sensations of their environment, the ways in which they perceive and evaluate those sensations are different. These differences in environmental perception are deeply influenced by many factors such as age, gender, length of residence in an area and lifestyle relating to their social and cultural environment and their values. Therefore, perception is not only a biological process, but is also socially and culturally learnt (Carmona et al., 2003).

Perception is typically used in the sense of "seen" because the function of seeing plays an essential role in collecting information. However, Rapoport (1977) argues that three distinct meanings are involved in perception: environmental evaluation or preferences, environmental cognition and environmental perception. Environmental evaluation or preferences can be used to describe the perception of environmental quality and therefore preference, behaviour, and decisions, while environmental cognition refers to the way in which people understand and know the environment, and use a mental map to negotiate it. Environmental perception describes the direct sensory experience of the environment for those who are in it at a given time. Thus, "Perception deals with how information is gathered and obtained, cognition with how it is organised [although the two are closely related], and preference deals with how it is ranked and evaluated" (Rapoport, 1977, p.31).

Ittelson (1978), conceptualises perception in a similar manner to Rapoport. He identifies four dimensions of perception: cognitive, affective, interpretative, and evaluative. Cognitive perception involves thinking and keeping information (in other words it enables us to make sense of the environment); affective perception involves our feelings, which influence our perception of the environment; interpretative perception involves our reliance on memory in interpreting information and evaluative perception incorporates values and preferences (Carmona et al., 2003).

Many authors and thinkers have identified the meaning of perception and cognition, and some of them believe that the distinction between perception and cognition is based on the role of direct and indirect knowledge (Rapoport, 1977). However,

Arnhiem (1969) believes that it is difficult to separate both terms, as he viewed perception and cognition as complements, in need of each other but different from each other in principle. Arnhiem argues that there is no difference between what happens when an individual looks at the world directly and when he sits with his eyes closed and "thinks". Neisser (1976) points out that perception and cognition are both parts of one unique cycle and that they affect each other.

From these different views on perception and cognition, we can conclude that both those who consider perception and cognition as two different functions and those who suggest that cognition and perception interact are correct. Hence, perception is more sensory, more related to direct experiences, and involves a process of interaction between the perceiver and the environment. The quality of perception itself depends on the skill and experience of the perceiver, on what he knows in advance (Neisser, 1976); it also depends on the physical, functional or emotional quality of the environment, in which differences in these qualities lead to highly personal responses (Kaki, 2000).

Carmona et al. (2003) argue that in their use of or movement through a public space, individuals are going through two processes: sensation and perception, where sensation refers to the senses of vision, hearing, smelling and touching that individuals use to understand the environment. Perception, on the other hand, refers to collecting, understanding and grouping the information received through the senses about the environment. Although these two processes are usually referred to separately, it is not clear where sensation ends and perception begins, in practice (Carmona et al., 2003; Carmona and Tiesdell, 2007).

In this context, two points can be underlined, the first of which is the claim by Bacon (1974) and Lang (1994) that it is not only vision but rather all the senses together that have an essential role and, therefore, should be kept in mind when considering the sensation and perception of a built environment. The second point to be highlighted here is that, according to Knox and Pinch (2014), while all people may share similar sensations, perception may differ due to various factors, including gender, age, ethnicity, duration of stay in the area, social environment, cultural background or life

pattern, not to mention the difficulty in determining the extent to which sensations are adapted socially. Consequently, it becomes very important to analyse the mental maps and images of places when exploring the perception of environment in the design of urban spaces (Carmona et al, 2003).

One key work in this context is Kevin Lynch's (1960) research in urban imagery where he employed the cognitive (mental) mapping as the key technique. This approach was built on two types of analysis: a comprehensive field study of the area conducted on foot by an experienced observer, in addition to long interviews with the actual residents of the areas. These were done in Boston, Jersey City and Los Angeles to get an understanding of individuals' own image of the physical environment in which they lived. Legibility was what Lynch worked on at first, and attempted to study the way people directed themselves and moved through the city before he discovered that the minor concept of orientation develops to create a mental image of the city. This led to the emergence of the concept of imageability. Lynch then recognised three characteristics for an environmental image to be a workable image: identity, structure and meaning (Lynch, 1960).

However, Lynch's work was criticised by many scholars, who claimed that the observers in his research belonged to different backgrounds and had different experiences, which consequently resulted in generating different images of the city. Depending on this, the accumulation process of people's images as a whole was questioned. Moreover, his research highlighted the perceptual knowledge of the physical form rather than the meaning of the environment and the way people felt about it.

Sense of the space is claimed to be an essential aspect when analysing public spaces. Many scholars, including Canter and Relph, have recognised the importance of this idea and explored it at length. For Relph (1976) physical setting, activities, and meaning are the three essential components that constitute the identity of the space. Relph's work, and that of scholars who have continued that work, puts emphasis mainly on activities and meanings. This can be justified by arguing that a place derives its sense not only from its physical appearance but also from the sum of

events, the different activities that have taken place in it and from their meaning (Jackson, 1994). That is to say, space can be regarded as a physical container of different activities that can be given meanings by the social and cultural categories, which lead to understanding the place and defining it.

2.3.4. Functional Dimensions

The functional attributes of public spaces describe the way individuals function in a space or, more specifically, how they use these spaces. Therefore, in order for the public place to be successful, it needs to accommodate such activities and encourage them; the awareness of the way people use such places is therefore very important in the process of designing these places (Carmona et al., 2010b). Bacon (1992, p.20) argues that 'endless walking' is the way through which designers can get to 'absorb into their being' truly the experience of an urban space. Similarly, the Project for Public Space (PPS 2000, p.51) notes that by observing a space, "you learn about how it is actually used, rather than how you think it is used."

Experienced designers can develop a comprehensive knowledge and sensitivity to people and places using their vast experience and it can be seen that many of the best commentaries about the use and design of public spaces stem out of observation of the relationship between activities and spaces. Jacob's *Death and Life of Great American Cities* (1961) was based on observations in North American Cities; Gehl's *Space Between Buildings: Using Public Space* (1978) on observations in Scandinavia; and Whyte's *The Social Life of Small Urban Spaces* (1980) on observation in New York.

In the 1970s, William Whyte conducted research that concentrated mainly on the way people use public spaces, with the aim of exploring factors that contribute to the success of some plazas and, hence, coming up with criteria and guidelines to be considered in the design of new ones. In his observation, he depended mainly on cameras and a time-lapse film to count people in 18 plazas. He eventually found out that there is a correlation between high use in plazas and the availability of many

variables in the built environment like sitting spaces, distance from street, sunlight, water features, green plants and food. This helped him also evaluate the role certain variables play in the built environment, in order to promote higher rate of use in plazas. There are other similar approaches in this context like Marcus and Sarkissian's *Housing As If People Mattered* (1986), the Project for Public Space's *How to Turn a Place Around: A Handbook for Creating Successful Public Places* (2000), and Stevens' *The Ludic City* (2007) (Carmona et al., 2010).

The Project for Public Spaces (PPS) (2000) examined public space in terms of its functionality, as the relation between people, their activities and the space. The PPS put an emphasis on learning about the use and function of public space through observation rather than anticipating its use (PPS, 2000).

Gehl categorises outdoor activities in public space as: necessary activities, optional activities, and social activities, each of which places very different demands on the physical environment (Gehl, 1987).

Necessary activities: these activities are important to everyday living, and people have to do them under nearly all conditions. As the participants have no choice, the occurrence of these activities is influenced only slightly by the physical quality of the environment.

Optional activities: these activities are undertaken voluntarily if the time and place is conducive, such as taking a walk, standing around or sitting and enjoying life. They take place when exterior physical conditions are optimal; however, they are maximised in good quality environments, but reduced significantly in poor quality environments.

Social activities: these activities depend on the existence of others in public spaces. They include actions such as children at play; chatting in the street, and meeting friends in a park, in other words, communal activities of various kinds.

When public spaces are of poor quality, only necessary activities happen; however, when these spaces are of good quality, a broad spectrum of human activities is

probable. Although the physical structure does not have a direct effect on necessary activities, in high quality outdoor areas these activities tend to take a longer time. Accordingly, optional activities occur with increasing frequency when the quality of outdoor areas is good. Moreover, as levels of optional activity rise, the number of social activities usually increases considerably (Gehl, 1996, 2010).

Gehl argues that the more time people spend outdoors, the more often they meet and the more they talk. He notes that social activities in city streets and city centres are in general more superficial, with the majority being passive contacts - seeing and hearing a great number of unknown people. Nevertheless, Gehl finds even this limited activity can be very pleasing.

While Whyte's analysis was based on observation, Carr et al.'s (1992) argument is based on synthesising research on the use of public spaces. They argue that, "as well as being **meaningful** - allowing people to make strong connections between the place, their personal lives, and the larger world - and **democratic** -protecting the rights of user groups, being accessible to all groups and providing for freedom of action - public spaces should be **responsive** - that is, designed and managed to serve the **needs** of their users." (Carmona et al. 2010, p.208)

The most important factor in the design of a successful public open space is taking people's requirements and needs into consideration through the space being attractive to them and accommodating their activities, which will guarantee longer time of use (Francis, 2003 as cited in Abbasi, Alalouch and Bramley, 2016).

In his book of, *Urban Open Space: Designing for User Needs*, Francis (2003) stresses that user needs are important elements for successful urban parks and open spaces, as identified by a wide variety of case studies. The work of Whyte (1980, 1988) in observing the use and non-use of plazas in New York City was the first to highlight the awareness of people's needs. Since then, people's needs have been identified by organizations such as Project for Public Space (PPS) and Urban Park Institute (UPI) as "one of the most critical considerations in planning, designing, and managing urban parks and open spaces" (Francis, 2003, p.17).

Movement is a key element in analysing the way people function, and therefore, designers need to understand it to create a well-designed public space, "Movement through public space is at the heart of the urban experience, an important factor in generating life and activity" (Carmona et al., 2003, p.169). In addition, mixed uses have an influence on the vitality of public open spaces. Jacobs and Appleyard (1987) claim that mixed uses help in bringing life to public spaces through the variety of activities they can offer to users.

In the following sub-sections, human needs, mixed uses, and movement and accessibility are discussed in more detail. Human needs are discussed in order to understand people's needs in public open spaces, and how the use of these spaces can be improved, while mixed uses, movement and accessibility are discussed in order to reveal their influence on the function of public open spaces.

2.3.4.a. Human Needs

Public spaces are designed in the first place with the purpose of meeting people's needs. Thus, it can be safely argued that in order to ensure a successful public place, it is essential first to study people's preferences, expectations and needs. It would also be useful to study the reasons why certain spaces are less attractive. In this sense, understanding users' needs and expectations in public open spaces acquires high priority for designers of these spaces. Lang (1994) supports this by stating that meeting peoples' requirements is a very important element in the design of urban public spaces (Lang, 1994). He also argues that such places are meant to serve people in the first place and they are, therefore, expected to take what people need and prefer into consideration, together with what is necessary to facilitate such needs. "If the built environment is to serve human purposes, one must have a good model of human needs to use as the basis for asking questions about what should be done, what functions should be served in a specific circumstance" (Lang, 1994, p.154).

Many researchers have dealt with human needs in general, proposing an all-embracing hierarchy of human needs, which often derive from Maslow's original work on human motivations (Maslow, 1943 and 1987). Such a hierarchy of needs is very important in identifying the shape and features of the built environment in a

public space. According to Maslow, it is motivation that triggers people's behaviour, which is, in turn, aimed toward fulfilling needs and requirements. There are no clear limits, however, for these needs, in the sense that when certain needs are fulfilled, other ones become desirable and wanted and here meeting the initial needs will no longer be a motivation. Thus, Maslow proposes the theory of human needs, in which he suggests a list of needs arranged according to priority, where the high priority ones to be fulfilled first. He identifies a five-stage hierarchy of basic human needs: physiological needs, safety and security, affiliation needs (belonging and love needs), esteem needs, and self-actualisation.

Similarly, Lang (1987) classifies human needs into basic human needs and cognitive and aesthetic needs. Basic human needs consist of, in a hierarchical order, psychological needs; safety and security needs; affiliation needs; esteem needs; and self-actualization needs. While there is a hierarchy, these different needs are correlated in a complex series of interlinked relationships.

Lang (1994) states that the physiological needs exist in a hierarchy within the hierarchy of basic needs. Such needs would range from essential needs to other ones like healthy development or a comfortable environment. The basic needs are these that cannot be missing, like air, food, drink and shelter that are vital to survive. Then, there would be other needs, such as to provide a healthier life or better physical development. There is then, in the majority of developed countries, a level where the main concern of urban design is about creating healthy environments that are comfortable, rather than just confining the design to one that maintains survival "Comfort is a complex variable because, while primarily a physiological state, it also has strong psychological characteristics" (Lang, 1994, p.218).

Lang (1994) states that different people would have different physiological needs. The level of people's competence and habituation would determine the affordance of a specific pattern within the built environment. This is because there will always be a form of hierarchy of abilities in every group of people, which means that people who have the basic level of competence would require the highest degree of precision in the design of the built environment as it will have to meet their needs so that they

can use it. There is also the element of users' expectations from a built environment, and these would vary according to many factors including psychological, social, and cultural differences (Lang 1994, p.219).

Satisfying these needs, if considered in design, are likely to enhance the quality of life of public open spaces. Thus, it can be safely claimed that by accommodating people's needs the result will be satisfaction and well-being whereas ignoring these would lead to negative outcomes like alienation, isolation and loss of control in the built environment (Lang, 1994).

> "It is important to examine needs, not only because they explain the use of places but also because use is important to success. Places that do not meet people's needs or that serve no important functions for people will be underused and unsuccessful" (Carr et al. 1992, p. 91-92).

Carr and his work team divide the human needs in a public space into immediate needs and long- range needs or purposes. They think that, at some point, going out to a public space will represent a need in itself. They also define the immediate needs as the basic ones like food and drink, compared with other long-range needs like the need for change.

According to them, the purposes of going to a public space are, in general, comfort, relaxation, passive engagement with the environment, active engagement with the environment and discovery (Carr et al., 1992). These needs can be satisfied through different uses and activities in the urban environment, and the presence of attractive spatial qualities and amenities in the public space, as well as the presence of security and comfort.

Comfort is a basic need and is related to the need for food, drink, shelter from the natural elements, and a place to rest. According to Carr et al., shelter from the sun, the rain or inclement weather is an important but frequently neglected element of open space design (Carr et al., 1992). The existence of adequate number of seats that are also comfortable enough can be an essential element in any well-designed public open space. In this context, Carr and his team attempt to describe the typical comfortable seating:

> "the orientation of the seating, its proximity to area of access, seating that is moveable, seating for individuals and groups, seating that enables reading, eating, talking, resting and privacy, seats with backs, and in the case of adults with children, seating in the sight line of play areas." (Carr et al., 1992, p.94)

They stress that seating should be designed to offer social and psychological comfort, as well as physical comfort. Therefore, a wide variety of seating choices and arrangements, such as movable tables and chairs, picnic areas, and benches near play areas allows for both physical and psychological comfort.

Whyte in his work (1980, 1988) highlights the need for comfortable and properly oriented spaces that have access to sunlight, trees, water and food, among other facilities. He calls this space "sittable space". Carr et al. (1992) claim that comfort influences the length of time people spend in a space.

Specifically, by ensuring that people feel safe, secure and unthreatened, comfort can be achieved both on the social level as well as the psychological one. This is significantly important, because lack of safety can be regarded as one of the top reasons that make people avoid public open spaces.

Relaxation depends on the ease of the body and mind. It can be said that in order for people to feel relaxed, in the first place they will need to feel comfortable on the psychological level. Thus, in order for people to be able to relax in a public open space, many elements are required, like a quiet environment, isolation from the busy streets life including people and traffic, and the natural elements experienced by the senses.

However, some authors, such as J.B. Jackson (1981) and Whyte (1980, 1988) claim that too much focus is put on the concept of relaxation, saying that a lot of people go out to public spaces to seek social activities and more participation in the public life of the city. Nevertheless, scholars like Becker (1973) and Nager and Wentworth (1976) claim that studies of public spaces indicate that "…. people also look for spaces that accommodate repose and relaxation and offer a brief pause from the routines and demands of city life" (Carr et al., 1992, p.99).

Passive engagement with the environment can be defined as the need to use a public space or setting but without active participation; rather, it depends on feeling joy through watching other people, activities or natural elements while sitting in an open space. Such encounters are described as passive or indirect due to the fact they depend on observing rather than actual participation. Examples of these would be watching public shows, events, people passing by or street scenes.

According to Whyte (1980, 1988) and his associates (Lindsay, 1978) people-watching is reported the most popular activity in small urban spaces. Whyte (1980, p.13) points out that "what attracts people most, it would appear, is other people." (cited in Carr et al., 1992, p.106).

Project for Public Space (1984) argues that regularly organised events in open public spaces like parties and concerts in addition to casual shows and performances can be employed as means to raise awareness of certain places as well as in order to create a better image of some other ones.

It is noticed that green plants and vegetation represent a powerful factor that attracts people to open spaces. Carr et al. found that in surveys regarding the opinions of public spaces users, especially public parks, the majority stressed that they enjoy vegetation and water elements as vital in giving the place its attraction (Hartig, Mang, and Evans, 1991; Kaplan, 1983, 1985; Kaplan and Kaplan, 1990, cited in Carr. et al., 1992). "The opportunity to be close to plants, trees, flowers, and water is strongly desired by people and there is some evidence that these elements may have relaxing and restorative qualities" (Carr. et al., 1992, p.116).

Active engagement involves direct interaction and participation with other people as well as the environment, which can be achieved via 'triangulation' (Whyte, 1980), in which a special feature such as an entertainer or a fine sculpture provide a linkage between people and strangers to enable them to talk to each other (Whyte, 1980, p.94).

Therefore, through the playing of children, gatherings, recreation, sporting activities and any other physical activities, this active type of engagement performs a social

function. That is to say, active engagement would comprise activities involving sports that promote exercise and health, using facilities in the environment such as seats, enjoying food and drink and having fun through watching spectacles. Such kinds of active engagement have high popularity amongst open space users because they promote social interaction while providing a positive aspect to the place through making public spaces energetic and lively (Carr et al., p.123).

There is, finally, **discovery**, the fact that people tend to seek stimulation or new good experiences, in addition to their desire to discover and examine public spaces, which can provide action, surprise, knowledge and joy.

When applying this concept of discovery to urban public spaces, it would be in the form of being able to watch the different activities people are doing, while exploring a site in addition to discovering different parts of the space itself. Therefore, it would be useful to promote the sense of discovery in such sites, which can be attained in a variety of ways, such as providing a physical setting that is full of variety and change, with dynamic, attractive views; having new events regularly, and changing levels and sectors. This sense of discovery would indicate that everything is possible and new things can be discovered while exploring the environment (Carr et al., 1992). The different types of human needs have been addressed in this study because they influence the success of public open spaces.

2.3.4.b. Mixed Uses

In a successful urban place there would be a mixed use of the land to accommodate an assortment of activities: in the ideal case there would be a variety of uses available, including living, working and shopping, together with different activities, whether public, spiritual or recreational. Such a variation in use would correspond to the values of the culture and help create and promote community identity (Alameddine, 2005).

Jacobs and Appleyard (1987) note that people would be usually attracted to public spaces in which a variety of activities are available, and that it is not the number of people present in the space but rather the number of activities that attract people to

the public space and make it lively. Therefore, they argue, areas with mixed use should be handy and accessible to people and should be located as close as possible to places where people usually meet, work, shop and spend time.

It is claimed that the surrounding land use has a great effect on public spaces, as inconsiderate change of land use might have a substantial negative influence on the public space by affecting its quality and vitality. An example of this would be getting rid of the traditional shops and enterprises in order to give space to more modern ones that would be of interest to a more limited sector of the society, and therefore preventing such places from continuing to be meeting places for different components of the communities (Alameddine, 2005)

Paumier (1989, cited in HMSO, 1992, p.66) explored the design of towns and cities and noted that particular focus should be given to certain elements that help give the space its sense. Thus, in the process of developing or reconstructing spaces he assigns particular importance to the quality of the space and the variety of markets in it. According to Paumier, there should be a mix of land use in a concentrated area, as this would help attract individuals and promote public activities, resulting in a social and energetic environment, in addition to other benefits such as economic benefits.

Marcus and Francis (1998, p.3), propose that there is a new type of space that is spreading increasingly, which they refer to as a semi-public space, where there is a mix of boutiques, cafes and well-known stores. They argue, however, that such places are available to limited sectors of people who can afford to go to such places. In fact, however, many people do not come with the purpose of shopping but rather to view the shops and people, so such places, in this sense, do actually enliven considerable parts of cities.

Carr et al. (1992) claim that such semi-public spaces that can be seen in many new shopping streets have a lack of the human element and the access to them is socially biased. That is to say, the design of such places can indicate that certain individuals are preferred to other ones. The existence of different shops and sellers is usually a good indication of public places. However, the expensive prices of such shops or

restaurants would act as a filter that excludes certain sectors of the society and encourages others.

Despite such issues, it can be said that, mixed uses are important elements in bringing life to cities generally, and to their public open spaces particularly, through the various possibilities they offer to the users.

2.3.4.c. Movement and Accessibility

It is claimed that the level and rate of interaction among people is influenced by the pattern of movement and the location of public facilities (Skaburskis, 1974). Behrens and Watson (1996) stress, therefore, that a successful public place is provided with all necessary facilities, activities and public transportation. Moreover, it should be as close as possible to the main system of movement. They draw a connection between the locations of public places and the locations of the public activities. That is, allocating places as public spaces would, at the same time, nominate these places to be potential places for different urban activities. Because public spaces are places where people would meet and move, their common pattern of movement becomes particularly important and it is noted that certain activities demand high public exposure and these would usually be desirable in places that are most accessible. Behrens and Watson (1996) propose that there is a kind of significant hierarchical dimension that emerges through time from the relationship between activities like gatherings, and moving and the use of spaces, which would have variable degrees of use from highly used to private ones.

Lang (1987) explores interaction patterns among people and identifies two main indicators of these patterns: functional distance and functional certainty, where he defines first the level of difficulty as occurring when moving from one point to another. Functional certainty, on the other hand, describes the degree of ease of access to commonly used facilities for a group of people; it also describes how often they would use these facilities and how long they would stay there for. He argues that the most important consideration here is that these settings actually help shape the behaviour of the users and become very valuable in their daily lives, which make it essential to provide easy access to such facilities. He then explains that in order to

encourage interaction among people, they need to have the opportunity to meet each other and gather.

Bill Hillier (1996) carried out a comprehensive practical study on the interrelation among the elements of movement, spatial structure of space and the use of land and noted that the organisation and formation of the space and visual obstruction (permeability) play a vital role in movement patterns and chances of encounter, where he uses the term 'intelligibility' to point to movement and visual permeability (Hillier, 1996). Regarding movement in any urban system, he claims that there are three essential factors in place: origin, destination and the spaces individuals need to cross on their way from one end to the other.

Open, closed or controlled places are all available to the users of urban public spaces and the physical construction can play both social and symbolic roles in drawing the boundaries for the social behaviours. This can be achieved through employing natural or constructional means. In this context, Carr et al. (1992, p. l50) identify three kinds of access: visual, symbolic and physical.

- Visual access: when people can see inside the space before entering it, so they can decide if they want to go in to it or not.
- Symbolic access: when spaces contain symbols, which encourage or discourage people to enter them, but it depends on how people will perceive these symbols, whether as threatening or welcoming.
- Physical access: when people are able to get into the space and use it (Carr et al., 1992).

There is a continuous interaction among these three types of access, and the result can sometimes be unclear as to who is allowed into a space and who is in control of 'the right of access'. In this sense, the elements of movement and accessibility in a city space can lead to its integration or segregation.

Functions of public space are not only movement. Public space offers opportunities for economic activity (e.g. ice cream/coffee stands) and political possibilities (e.g. displays/protests). Carr et al. (1992, p 12) argue that it is likely that new businesses

can develop in public spaces. That is to say, in successful public spaces where a variety of activities are available in addition to events, shows and other interesting performances, this would attract more people, which would mean more potential customers. Project for Public Space (PPS) (2000) notes that public spaces represent a free opportunity for people to observe and experience different arts and take part in cultural events, which will enrich the functional mix.

2.3.5. Summary

This section has discussed the qualities of public open spaces that emerged from section 2.2, namely, the physical, social, perceptual, and functional qualities (Figure 2.2).

The physical quality of public open spaces focuses on the physical and spatial elements of the environment and their influence on people's behaviour and needs. The physical structure of the built environment can be defined as urban morphology, which refers to urban form and urban layout. Urban layout should be robust and capable of adaptation. Urban form has two dimensions, social and physical, and can be defined as a combination of various component parts, such as building form, open space, land use, circulation or movement, layout and spatial structure. Understanding these components is important in consideration of the physical quality of public open spaces. The socio-spatial theory of space syntax deals with the spaces as a social product, not only as physical objects, and is used for analysing the spatial structure of the built environment.

Making public open spaces with consideration of their imageability and legibility contributes in creating an attractive physical built environment, one that invites use. The five elements of Lynch's theory can be used to analyse the physical quality of the built environment. The physical characteristics of the urban form, such as size, shape, height, and furniture have a strong influence, positively or negatively, on the quality of public open spaces.

The social dimensions raise issues associated with social interaction in public open space, public life and the feeling of safety and security in these spaces. Social

interaction is needed in public open space because it has an influence on meeting human needs for affiliation and belonging. Sociability in public spaces is based on people's need to affiliate and interact with others. The socio-cultural characteristics of the community influence the way people interact and socialize in public open spaces.

People will be attracted to use public open spaces when the physical amenities, activities, safety and security conditions are inviting them, and then their presence in these spaces also attracts other people. The level of sociability and public life occurring in public open spaces provides indications of the physical and functional qualities of the spaces.

The perceptual dimensions focus on understanding people's perception and cognition and their appreciation of the surrounding environment. People in public open spaces are involved in two processes, sensation and perception. They first use their senses to interpret the environment around them, and then they will be able to perceive it. Sensation may be similar among people but perception varies depending on factors such as gender, age, lifestyle, length of residency, and on the social, cultural, functional and physical quality of the environment they live in.

The functional dimensions are concerned with the use and function of public open space. Functionality can be understood as the relation between people, their activities and the space. Gehl's three categories of outdoor activities; necessary activities, optional activities, and social activities, are influenced largely by the quality of the physical environment. Good quality outdoor spaces help in increasing the frequency of optional activities, which in turn usually support a significant increase in social activities.

Providing a wide range of mixed uses around public open spaces is of extreme importance to the vitality of these spaces, as the variety of activity they can offer to users helps in bringing life to a cities' spaces. In addition, improving accessibility in public open spaces helps in generating life and activities. Therefore, meeting human needs in public open spaces has huge impact on the use of these spaces, and is essential in achieving human satisfaction and well-being. People's needs in public

open spaces are, in general, comfort, relaxation, passive and active engagement with the environment, and discovery.

Reviewing the qualities of public open space, which were discussed above reveals the complex nature of these qualities and the interlinked and overlapping meaning and function of these qualities. Figure 2.2 illustrates the key relationships and issues revealed during this review. These physical, functional, social and perceptual qualities underpin all the research findings. The next section focuses on ways of improving the qualities of public open space.

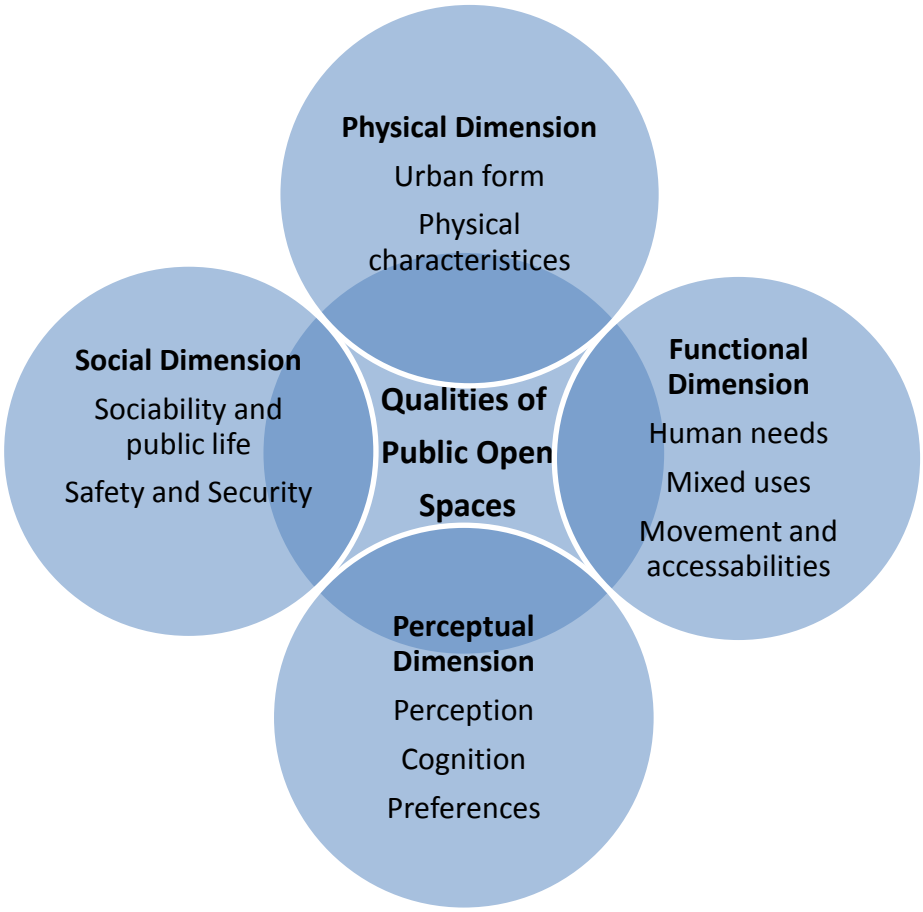


Figure 2.2 Qualities of public open spaces (Source: the researcher)

2.4. Improving the Quality of Public Open Space

This section uses the qualities identified in section 2.3 as a basis for considering ways to improve public open space.

> "Thinking of a successful place, to be able to go there and know that this is a good place, seems to be a relativity straightforward task; but it is much more challenging to distinguish why it is successful, and whether similar success can be generated somewhere else." (Carmona, 2010, p.120)

Carmona et al. (2008) point out that an awareness of the key elements that constitute public space is by itself of little value without an awareness of how these elements are patterned together to improve the qualities of public space that make it conducive to human activity. Based on extensive research across the world, Gehl (1987, 1996, and 2010) argues that public space activities are particularly important in perceptions of public space, and sensitive to the physical quality of environments.

> "Although the physical framework does not have a direct influence on the quality, content, and intensity of social contacts, architects and planners can affect the possibilities for meeting, seeing, and hearing people - possibilities that both take on a quality of their own and become important as background and starting point for other forms of contact." (Gehl, 1987, p.13)

He asserts that physical improvements can engender social activity in public spaces, and therefore help to improve them. (Figure 2.3) Improving the physical quality of public open space can help to increase the number of people in an outdoor place, the expansion of the average time spent outdoors, and extend greatly the spectrum of outdoor activities. Climate is also an important factor in the extent and character of outdoor activities. Therefore, outdoor activities can be reduced or rendered impossible if the climatic conditions are not welcoming, such as if it is too cold, too hot or too wet (Gehl, 2010). Shaftoe (2008) emphasises the need to provide protection from the harshness of the climate, for example, from the searing heat or the bitter cold in order to enhance outdoor activities in public spaces. He points out that shade and ventilation can achieve a cooling effect in hot climates, while for the cold climates, the enclosure effect of low-rise buildings, along with suitable clothing with

the support of outdoor heaters can help to warm up the space. In the worst scenario, Shaftoe suggests that convivial spaces can be totally or partially roofed. (Shaftoe, 2008)

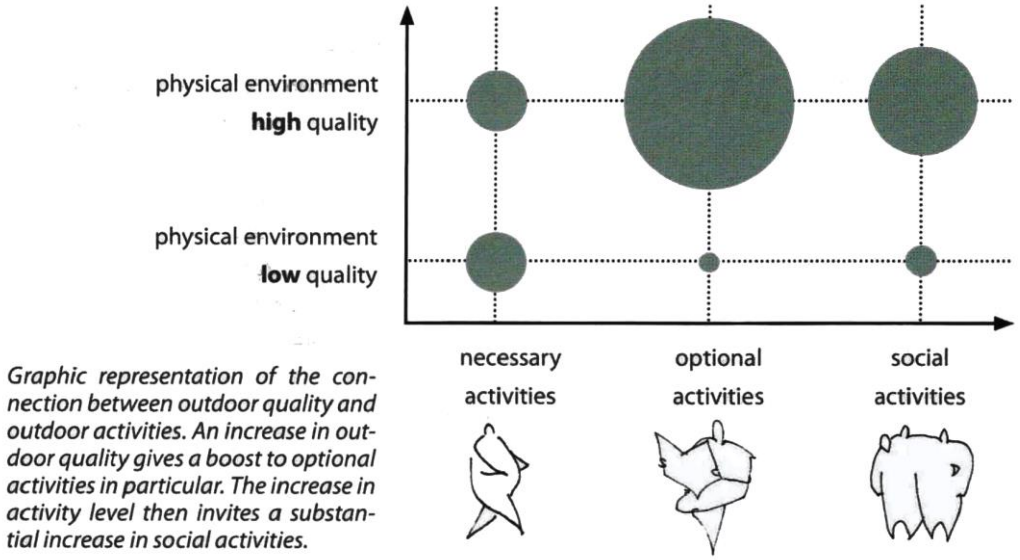


Figure 2.3 Ways of improving the outdoor quality of public space. (Source: Gehl, 2010, p. 21)

Whyte in his book *The Social Life of Small Urban Spaces* (1980) expresses the close relationship between the qualities of city space and city activities, and explains how simple physical changes can improve the use of outdoor spaces. For example, an experimental improvement to a pedestrian street in Melbourne, Australia of increasing the number of seats by 100 percent resulted in seated activities increasing by 88 percent (Gehl, 1987). Similar results have been achieved in a number of improvement projects carried out in New York and other US cities by the Project for Public Spaces (PPS).

Gehl (2010) also argues that the renovation of a space or even change in furniture and details can invite people to a totally new pattern of use. From his surveys in Melbourne and Copenhagen, Gehl (2010) concludes that there is a close connection between people's use of city space, the quality of city space and degree of concern for the human dimension.

He concludes that, if better public spaces are provided, use will increase. He claims that his studies' findings are "generally valid in various cultures and parts of the world, in various climates and in different economies and social situations" (Gehl, 2010, p. 17) Gehl emphasises that physical planning and design can greatly influence the pattern of use in public spaces in the city. He claims that improving the quality of city space, considering the human dimension in the design of public spaces and providing tempting invitations would entice people to walk around and stay in public spaces and therefore, invite them to spend more time. "Invitations to do something outdoors other than just walking should include protection, security, reasonable space, furniture and visual quality" (Gehl, 2010, p.21).

Carmona et al. (2008) argue that it is a mistake to think of better quality public space as purely a visual concern. "Instead, these are fundamental issues that impact directly on the way all users perceive, function, and socialise in public space, and by implication on the viability of public space for different economic activities." (ibid. p.12).

Carmona et al. (2008) point to a wide range of publications which focus on the design of urban spaces and set out key ambitious principles for designing new and improving existing public spaces. However, they state that "managing rather than designing public space is a broader concern that includes, but extends beyond, design objectives." (ibid. p.12). They argue that managing public space is also constrained as in most environments, the physical elements which constitute the public space are already in place and unlikely to change over the short or medium term. (Carmona et al., 2008)

In their successive surveys, focused on what people perceive would most improve their areas, MORI (2000) found that people expect safety, cleanliness, tidiness, access for all and provision for dogs in parks.

Llewelyn Davies (2000) calls for public space that stimulates the senses, visually, but also by sound, touch and smell; places that are distinctive and interesting, building on local character; places free of clutter, but which nevertheless exploit the power of public art and places with are legible through good lighting and signage.

Based on their analysis of more than a thousand public spaces around the world, the Project for Public Space (PPS) (2000) found four key qualities that are essential for high-quality public spaces:

- Accessibility: a successful space is easy to get to and move within, visible and convenient to use;
- Comfort and image: concerned with perceptions of space as safe, clean, green, full of character and attractive;
- Uses and activities: are the reasons for people to be there, make the space special and unique;
- Sociability: a space that fosters friendship, neighbourliness, interaction, diversity, and pride.

They argue that places without these features are most probably isolated, uncomfortable or simply unusable, indicating that something is wrong with the design or management, or both.

In the same vein, Smith et al. (1997 as cited in Carmona et al., 2008), based on an extensive analysis of place-based physical visions, developed a similar list of qualities which are essential in urban environments: liveability, character, connection, mobility, personal freedom and diversity.

Carmona et al. (2008) point out that numerous physical prescriptions have been established for what makes a good space, for example, in the work of William Whyte (1980) concerning the location and physical character of spaces, Amos Rapoport (1990) on the size and shape of spaces and Bill Hillier (1996) on the interconnectivity of spaces. Gehl (1996), among others, points out that size, shape, connections, the character of elements within space, and their detailed design are "factors that are important in determining the quality of public space and therefore the type of human activity they will sustain" (Carmona et al., 2008, p.14). Gehl argues that these factors are both measurable and tangible. Shaftoe (2008) points out that although design is important for creating convivial spaces, the size and location of the space along with the way it is managed and animated are equally important factors.

DEMOS (2005), based on their research, state that many of the needs that determine how the public environment is perceived are often intangible, reflecting the diverse motivations, needs and resources available to different groups and users.

Carmona et al. (2008) assert the historically important role of public space for social exchange. Similarly, Lloyd and Auld (2003) confirm the dominant importance of social space as a dimension of quality. They argue that the degree to which environments encourage socialisation influences directly the quality of life of people who use them. In this regard, Carmona et al. (2008) claim that, "trends of commercialisation, privatisation and commodification in public spaces and facilities [see Chapter 3] can act to undermine this vital role, by making the use of many spaces transitory, linked solely to commercial rather than social exchange" (ibid. p.14). As a response to this problem, Lloyd and Auld (2003) note the need to create or refurbish local environments to make them conducive to social interactions that extend across successive visits.

Carmona et al. (2008) reveal the importance of seeing public spaces as social places and as an important resource for individuals and communities, not just as physical containers.

Based on the wide literature which deals with the desirable qualities of public space combined with a range of urban design objectives, Carmona et al. (2008) identify a set of 'universal positive qualities' for public space that reflect the complex and overlapping social, economic, and environmental characteristics of public space. (Table 2.1) They point out that "concentrating on some qualities to the detriment of others may simply undermine attempts to improve the overall quality of space" (Carmona et al., 2008, p.16).

Table 2.1 Universal positive qualities for public space (Source: Carmona et al., 2008, p.15)

Universal positive qualities for public space		
Clean and tidy	Well cared for	Clear of litter, fly tipping, fly posting, abandoned cars, bad smells, detritus and grime; adequate waste-collection facilities; provision for dogs
Accessible	Easy to get to and move around	Ease of movement, walkability; barrier-free pavements; accessible by foot, bike, and public transport at all times; good quality parking; continuity of space; lack of congestion
Attractive	Visually pleasing	Aesthetic quality; visually stimulating; uncluttered; well-maintained paving, street furniture, landscaping, grass/verges, front gardens; clear of vandalism and graffiti; use of public art; coordinated street furniture
Comfortable	Comfortable to spend time in	Free of heavy traffic, rail/aircraft noise, intrusive industry; provision of street furniture, incidental sitting surfaces, public toilets, shelter; legible; clear signage; space enclosure
Inclusive	Welcoming to all, free, open and tolerant	Access and equity for all by gender, age, race, disability; encouraging engagement in public life; activities for young people; unrestricted
Vital and viable	Well-used and thriving	Absence of vacant/derelict sites, vacant/boarded-up buildings; encouraging a diversity of uses, meeting places, animation; availability of play facilities; fostering interaction with space
Functional	Functions without conflict	Houses compatible uses, activities, vehicle/pedestrian relationships; provides ease of maintenance, servicing; absence of street parking nuisance
Distinctive	A positive, identifiable character	Sense of place and character; positive ambience; stimulating sound, touch and smell; reinforcing existing character/history; authentic; individual
Safe and secure	Feels and is safe and secure	Reduced vehicle speeds, pedestrian, cyclist safety; low street crime, anti-social behaviour; well lit and good surveillance, availability of authority figures; perception of security
Robust	Stands up to the pressures of everyday use	High-quality public realm, not repeatedly dug up; resilient street furniture, paving materials, boundaries, soft landscaping, street furniture; well-maintained buildings; adaptable, versatile space
Green and unpolluted	Healthy and natural	Better parks and open space; greening buildings and spaces; biodiversity; unpolluted water, air and soil; access to nature; absence of vehicle emissions
Fulfilling	A sense of ownership and belonging	Giving people a stake (individually or collectively); fostering pride, citizenship and neighbourliness; allowing personal freedom; opportunities for self-sufficiency

Using studies of Saudi cities, Mandeli (2010) points out that the design criteria for public space provision, which are mainly concerned with the objective quality of public space, suggest standards, size and location for public space from a physical planning point of view. This incomplete scope of action, along with limited understanding of urban need, combined with poor management systems, has resulted in difficulties in creating attractive public spaces with high quality. He asserts the need to understand the physical and non-physical characteristics that contribute to the delivery of high quality public spaces in order to enable local authorities and their professionals to play a more effective role in enhancing the quality of the public realm (Mandeli, 2010).

In a similar approach, Shaftoe (2008) asserts that design and architecture alone cannot create vibrant places, because design interrelates with location, management, and culture. In his book *Convivial Urban Spaces* Shaftoe (2008) pays particular attention to the non-visual elements of a place, as these are often the elements ignored by designers and include sounds, feelings, smells, textural qualities, movement (both

the feeling of movement and the actual movement through a space) and taste. In this regard, his work goes beyond the visual preoccupation of Urban Design and Architecture, expanding the knowledge base of both fields. (Gehl and Matan, 2009). According to Gehl and Matan (2009), there is a need to involve users in the planning and design process in order to provide successful places, which are well-used spaces.

Mandeli (2010) concludes his study of improving the quality of public spaces in neighbourhoods in Jeddah City that full consideration should be given

> "to how these neighbourhoods offer the potential for residents to have a greater attachment to adjacent outdoor areas; to how to encourage individuals to participate in improving their immediate surroundings; to how public spaces within residential areas become accessible, aesthetically pleasing and more sociable; and to how to reduce a sense of risk and undesirable behaviour." (Mandeli, 2010, p.171)

The previously mentioned literature and discussions reveal numerous principles, desirable qualities and approaches that help in providing high quality public open spaces, in other words, creating liveable spaces which respond to users' needs. Figure 2.4 illustrates a set of principles, drawn from the literature, which are necessary for high quality public open space.

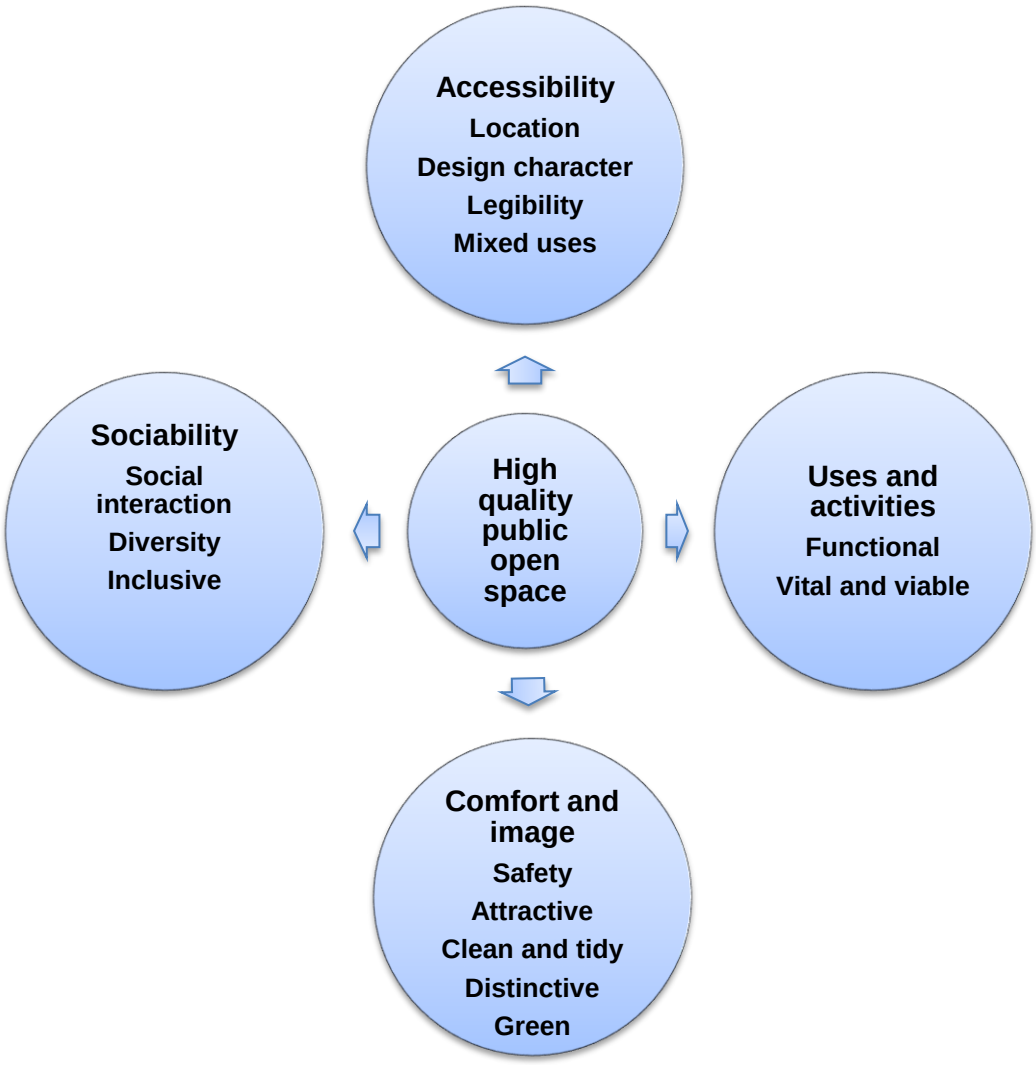


Figure 2.4 Set of principles of high quality public open space (Source: adapted by the author from the PPS, 2000, and Carmona et al., 2008)

Several researchers have evaluated the quality of public spaces using different attributes such as physical and visual characteristics (Lynch, 1960), visual description and aesthetics (Cullen, 1961), physical and functional aspects (Whyte, 1980 and Gehl, 1986, 1996), physical and social patterns (Gehl, 2010, 2013), usage spatial aspects (Golicnik, 2005), spatial structure (Hillier and Hanson, 1984), and post-occupancy evaluation of public space (Cooper Marcus and Francis, 1998).

All these attributes can be used to analyse the quality of public open spaces, as the investigation into each attribute discloses various valuable issues. Previous studies

such as Zamani (2010) and Srirangam (2008) used a comprehensive approach with a wide range of attributes in analysing public open spaces. They emphasise the significance of applying a social spatial approach in enhancing the understanding of pubic open spaces and their qualities. Srirangam (2008) states that the spatial qualities, social qualities and their relationships are all important aspects for an understanding of the urban process of public spaces. Similarly, Zamani (2010), in his study of public open spaces in an Iranian new town, asserts the importance of the socio-spatial-symbolic framework in the design and development of public open spaces. Following Madanipour (2003), he uses an integrated approach to public space which includes its social, physical and psychological dimensions.

The social spatial approach seems appropriate to use in this research, because of the importance and effectiveness of this approach in providing comprehensive insights into the quality of public open spaces (Madanipour 1996, 2003).

The next section reviews briefly some concepts and notions of the social spatial approach to analysing and understanding public open spaces.

2.4.1. The Social Spatial Approach

> "Public open spaces of many societies have played a major role in the urban environment at the neighbourhood or urban level, being meaningful settings to our social existence not only in terms of being physical entities per se but also as objects affecting the quality of our social relations and feelings towards our locality." (Zamani, 2010, p.172)

As mentioned earlier, in section 2.3.2, Carmona et al. (2003) claim that public space is an entity brought about by a two-way process between two components: people and place. Thus, the public realm has a physical (space) and a social (activity) dimension. The physical public space (spaces and settings) supports or facilitates public life and social interaction. Carr et al. point out that studies in public spaces focus on the relationship between people and places, rather than on abstract human needs or place qualities. (Carr et al., 1992)

Madanipour (1996) argues that to obtain a coherent image, the concept of urban public spaces should combine both social and spatial structure. "Social and physical dimensions of urban form have a dynamic relationship. Physical fabric is produced and conditioned by different social procedures. At the same time, the form of urban form, once built, can exert influences upon the way those procedures occur" (Madanipour, 1996, p. 33). The physical attributes have a significant impact on the social process in urban public spaces and vice versa. He added later that public space refers to that part of the physical environment, which is associated with public meanings and functions (Madanipour, 2003).

Similarly to the ideas expressed by the previously mentioned researchers, Frick (2007) argues that public space is a vital component in developing neighbourhoods and cities and that the spatial characteristics of public space should be supportive to the behavioural patterns of the people.

Hillier produced 'space syntax', the socio-spatial theory, which deals with understanding how people move in spaces and how spaces are generated by social environments. Hillier and Hanson (1984) identify space as an area which contains social behaviour, because it offers the opportunity to move around and meet others, and therefore, to generate social relationships. Spaces with high accessibility and connectivity to surrounding places are likely to be more appealing in terms of social interaction, while segregated and closed spaces are more likely to prevent social life in an area.

From the above discussion, it can be concluded that both the spatial quality and the social patterns and their correlations have value in and impact on the provision of public open spaces and their qualities. Therefore, there is a need for a comprehensive approach in order to understand these complex phenomena.

2.4.2. Summary

This section has reviewed the multitude of factors that have an impact on the qualities of public open spaces and, thus, on the process of improving these qualities. The social spatial approach emerges as an effective and comprehensive approach to analyse, understand and improve the quality of public open spaces.

Terms such as 'socio-spatial approach' (Madanipour, 1996), and 'social spatial study' (Srirangam, 2008) have been used in the literature. However, this thesis uses the term the 'social spatial approach'.

The literature suggests that there is a robust relationship between the physical quality of public open spaces and the human activities conducted there, and claims that simple physical changes can improve the use of public open spaces. Therefore, physical planning and design can significantly affect the pattern of use in public spaces and thus help to provide high quality public open spaces. However, other factors such as location, management, public participation and culture appear to influence the provision of these spaces.

Many authors, including Carmona et al., Gehl, and the Project for Public Space (PPS) set out key principles for designing new and improving existing public spaces. The four key qualities identified by the PPS (2000), along with the set of principles for universal positive quality of public spaces proposed by Carmona et al. (2008) appear to be essential principles for providing high quality public open spaces. In addition, factors such as size, shape, connections, the character of elements within space and their detailed design emerged as important elements in defining the quality of public open spaces.

There is a need to understand the physical and non-physical characteristics of public open spaces in order to enhance the quality of these spaces. In other words, it is important to see public open spaces as social places not just as physical containers. Therefore, in order to improve the quality of public open spaces there is a need to analyse the spaces both socially and spatially in order to understand all the attributes that have impact on the provision of high quality public open spaces.

2.5. Conclusion

The discussion in this chapter was based mainly on three key aspects of public open spaces, namely, the concept and definitions of public open space and its importance; the qualities of public open space; and the way to improve these qualities.

Public open space plays a significant role in the life of our cities, and the quality of life can be measured by the quality of its public open space. The reviewed literature reveals the multi- functional aspects that are embedded in the concept of public open space. In the context of this research it is understood as outdoor places accessible to the public where people can meet and engage in activities. The qualities of public open space have been explored by examining an extensive range of literature related to the physical, social, perceptual and functional qualities. These qualities are perceived as interlinked entities that allow an understanding of the physical and spatial characteristics of public open spaces and their impact on people's perception of and behaviour in these spaces.

The literature suggests a set of principles and qualities, which should be considered for providing high quality public open space, from which the researcher has adopted a set of principles to be used as a guide for the purpose of this research. According to the literature, improving the quality of public open spaces requires a comprehensive analysis of these spaces which considers social and spatial components in order to be able to evaluate their quality and then provide recommendations for improvements

Chapter 3 - Research Methodology

3.1. Introduction

The previous chapter presented a review of the main theories of public open space and its qualities and revealed the importance of a comprehensive approach in analysing the quality of public open spaces. It concluded by proposing a comprehensive social spatial approach to address the main research question: How can the quality of public open spaces in Hama be improved?

This chapter deals with the research methodology developed to respond to the research objectives outlined in Chapter 1. It first describes the strategic approach of the methodology that underpins the research, then explains the case study research method applied in this research, including the criteria used in the selection of case studies, and illustrates how the method was applied to three parks in Hama. Finally, the chapter discusses the techniques used in this research, both field work and desk studies. Figure 3.1 illustrates the methodological approach applied for the purposes of this research.

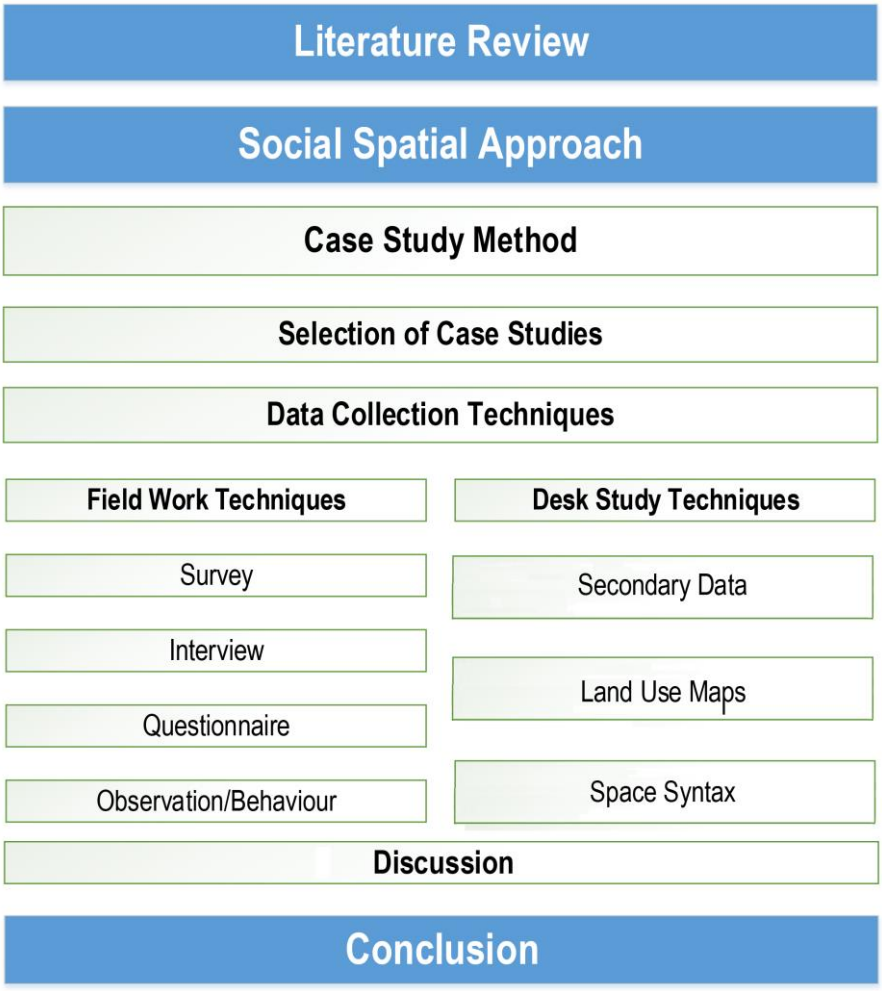


Figure 3.1 The methodological approach of this research

3.2. The Strategy: A Social Spatial Approach

The main purpose of this research is to identify ways to enhance the quality of public open spaces, namely parks, in Hama; therefore, a comprehensive approach was used to investigate all the attributes that have influence on the quality of public open space and its potential improvement. The literature reviewed in Chapter 2 reveals the complexity of the qualities of public open space and the interlinked relationships among these qualities, and points to the need for a comprehensive approach to deal with such phenomena.

Carmona (2003) and Madanipour (1996) emphasise the importance of understanding public open space as social as well as physical space, and thus they, among others, emphasise the importance of using a comprehensive approach in analysing the quality of public open space in a way that includes all the social and spatial attributes.

Although there is a variety of ways to address a particular research study, one approach may appear more relevant to your research than another. (Grix, 2010). For this research the social spatial approach, discussed in Chapter 2, has been selected as the strategic approach capable of providing a comprehensive underpinning of the investigation.

3.3. Case Study Research Method

The case study research method is commonly used in the disciplines of psychology and sociology, where "the distinctive need for its use arises from the desire to understand complex social phenomena" (Yin, 2003, p.2). It is also used in practice-orientated fields such as urban planning, and public policy (Yin, 2003: xiii). The case study research method needs detailed, in-depth data collection that involves using multiple sources of evidence and reports a case description and case study themes (Yin 2003, 2009, Creswell 2013).

Some researchers argue that the case study method is suitable for exploratory investigation and preliminary research only, and cannot be used to describe or test propositions (Shaveson and Townes, 2002 in Yin, 2003) However, other researchers believe that case study methods are valid for exploratory, descriptive and explanatory purposes (Yin 2003). Yin (2003) states that the case study research method is considered as a valid method for empirical work by many scientists. He explains that "the case study method allows investigators to keep the holistic and meaningful characteristics of real life events such as individual life cycle, small group behaviour" (Yin, 2009, p.4). Case study methods can also be used to answer questions of how and why, when studying a contemporary set of events over time, where the researcher has little or no control over them. (Yin, 2003, and Flyvbjerg, 2011).

However, the case study research method has been criticised for many reasons, such as that it is subjective, limited in terms of generalization from single case studies, and requires a large amount of work due to the enormous amounts of unreliable data generated, which are difficult to summarise (Yin, 2003).

Flyvbjerg (2004, p.420-432) addresses the misunderstandings regarding case study research and clarifies its strengths. He argues that: case study information can be more valuable than general theoretical data; it is possible to generalise from case studies, even from a single case study; the case study is not more biased than any other research method; and despite the fact that it is difficult to summarise from case studies with regard to the process, this difficulty is related more to "the properties of the reality studied than to the case study as a research method." (Flyvbjerg, 2004, p.432).

Flyvbjerg (2004) points out that case studies can be useful in generating and testing hypotheses. Similarly, Walton (1992) and Flyvbjerg (2004) both argue that a case study is likely to produce the best theory. According to Flyvbjerg (2006), case studies are important for researchers to develop the skills needed to do good research. They also help the researchers to draw conclusions and findings, which could be applied in other cases, contexts or cities. (Leedy and Ormrod, 2005).

Flyvbjerg (2004) considers that strategic selection of case studies can significantly increase the opportunity to generalise findings, emphasising the appropriateness of selecting case studies according to their validity rather than using random samples. Moreover, choosing an extraordinary case study to examine can provide more information about the phenomenon or the situation under study, as it involves extra actors and strategies in the research situation (Flyvbjerg, 2004).

According to the above discussion, the case study research method appears to be an appropriate method for the purpose of this research. This research adopts the case study research method to gain holistic insights into the complex nature of public open space in Hama and to explore its social and spatial aspects. The main research question of how to improve the quality of public open spaces in Hama is explored through this method, which entails in-depth analysis of the selected case study parks within their wider context. Smith (1999) argues that analysis of case studies should be supported

by knowledge of the general context in which the case studies are located, which is Hama city in this research. (Smith, 1999 cited in Haddad, 2009)

The author agrees with Yin (2003) that, although a single case study is acceptable, the use of more than one case study provides more information. Christie et al. (2000) also point out that multiple case studies allow triangulation of evidence, thereby providing a more rigorous and comprehensive approach than single case study research. Three case studies have therefore been selected for the purpose of this research, in order to respond to the research objectives of exploring the spatial structure of public open spaces in Hama and how they are used by the residents. The case study parks were selected according to their validity, as suggested by Flyvbjerg (2004), rather than using random examples. The criteria for the selection are discussed in the following sub-section.

3.3.1. Selection Criteria for the Case Studies

The case studies in this research are selected from the parks in Hama, because they are the main focus of this research. Initial observations revealed that people in Hama were using open spaces such as roundabouts and street pavements as parks and this motivated the researcher to investigate the quality of the parks in the city.

The topography of Hama, being situated on the banks of the Orontes River, which passes through its very heart, has largely affected the distribution of public open spaces in the city, particularly the parks (see section 4.2 in Chapter 4). Most of the public open spaces are located in the city centre area around the riverbanks. However, there are several parks located outside the city centre and away from the riverbanks.

The selection criteria for the case studies are size, historical importance, and location, and they were applied in a hierarchical order. In the first place, the researcher looked at the list[3] of the largest parks in the city, in which the first four parks are; Al Qalaa

[3] The list of the parks is provided by Hama City Council and did not take into account the planned public open spaces around the river banks, as they are not considered by the municipality as parks. More information about the nature and location of these spaces was provided in section 4.4.in Chapter 4.

Park, Al Thoura Park, Um Al Hassan Park, and Al Andalous Park. These parks were classified by Hama City Council as the most important parks in the city due to their size (see section 4.4. in Chapter 4).

Al Qalaa Park, the site of Hama castle, is the largest park in the city and is classified by the Municipality of Hama as the most important park in the city due to its historical value. It is situated in the city centre and has a good view of the Orontes River and the Norias that are located alongside the river. Al Thoura Park is the second largest park in the city, also on the river but outside the city centre. Al Andalous Park, the third largest, lies outside the centre, in the neighbourhood of Al Andalous, and away from the river, while, Um Al Hassan Park, the fourth largest, is situated in the city centre, and on the banks of the Orontes River.

Among the four largest parks in the city, Al Qalaa Park, which holds symbolic meaning was chosen as a unique extraordinary case study due to its historical importance. As Flyvbjerg (2004) argues this exceptional case study might provide more information about parks in Hama, due to its particular conditions. Another two case studies were chosen from the other three parks according to their location. To be representative of the parks in the whole city they should be located within the city centre and on the banks of the Orontes River, and also located in the outskirts and away from the river. Um Al Hassan Park was selected as a second case study to represent the parks in the city centre and on the river banks while Al Andalous Park was selected as a third example from parks outside the city centre and away from the river.

Figure 3.2 shows the three selected case study parks in Hama. Further details of the case study parks are illustrated in section 5.3.1 in Chapter 5.

Figure 3.2 Hama showing the location of the three selected case study parks

3.4. Data Collection Techniques

A variety of techniques, qualitative and /or quantitative, are found in the literature in research studies analysing the quality of public open space. These include site and behaviour observations, unstructured and structured interviews, focus groups, open-ended or closed questionnaire surveys, cognitive mapping, 'go-along' interviews, urban design audit, urban design inventory and visual assessment and space syntax. (Lynch, 1960, Whyte, 1980, Hillier, 1996, Gehl and Gemzøe, 1996, Copper Marcus and Francis, 1998, Gehl, 2003, Ward Thompson et al., 2009, Carpiano, 2009, Forsyth et al., 2010).

This research uses the case study method as the main research method; within that several different data collection techniques are used, which have multiple evidentiary sources. They are considered as the most suitable ones for responding to the research objectives and answering the key research question. The data collection techniques used are mainly qualitative but also quantitative: some are field work and others are desk studies (Figure 3.1).

The techniques are grouped into two categories, spatial and social. The spatial data sources are secondary data about the city and the governance process of public open spaces (books, journals, governmental documents and archival materials- plans of Hama, statistical statements, and current and old photographs), land use and urban form surveys and space syntax maps. The social data sources are the questionnaire survey with residents in the city, participant observation and behavioural mapping techniques applied in the case study areas, and semi-structured interviews with professionals. These techniques are applied in this research at two levels, some of which are at the city level and others at the level of the case study parks or sometimes at both. Therefore, the case study parks have been analysed both spatially and socially along with features and characteristics of the city, which relate to or will contribute to the analysis of the case studies (Figure 3.3).

The required data were collected during four field trips to Hama (August 2009 and 2010, December 2010, and March 2011). In August 2009 the author conducted a pilot

study in order to get general insights about the built environment of the city, and to understand the nature of its public open spaces. The methods of the pilot study were mainly observations, along with informal interviews with some of the users of the public open spaces in Hama. A few informal interviews with professionals in Hama City Council were also conducted to explore the key actors involved in the governance process in Hama. (See Appendix A for full details of the pilot study)

The second field trip in August 2010 was used to carry out the actual empirical work of the research, when the land use survey, questionnaire survey, observation and behavioural mapping techniques, and semi-structured interviews took place. An explanation of these methods is provided below in sections 3.4.1 and 3.4.2. Visits to Hama City Council, Old Hama Directorate and libraries were made to obtain the required secondary data. These documents and materials are in Arabic[4] and are particularly important for the spatial analyses and to understand the context of Hama and the governance process of public open space in the city. (See section 4.4 and 4.5 in Chapter 4). The field trip in December 2010 was mainly to carry out the winter surveys of the observation and behavioural mapping techniques.

In March 2011 missing information for the social and spatial surveys was gathered. The focus of this field trip was to understand in depth the process of design and management of public open spaces in Hama. Interviews with key professionals in Hama City Council were conducted and governmental documents were collected.

[4] See section 8.4 in Chapter 8 about the qualification of presenting data in a different language than the language of which the data was collected in.

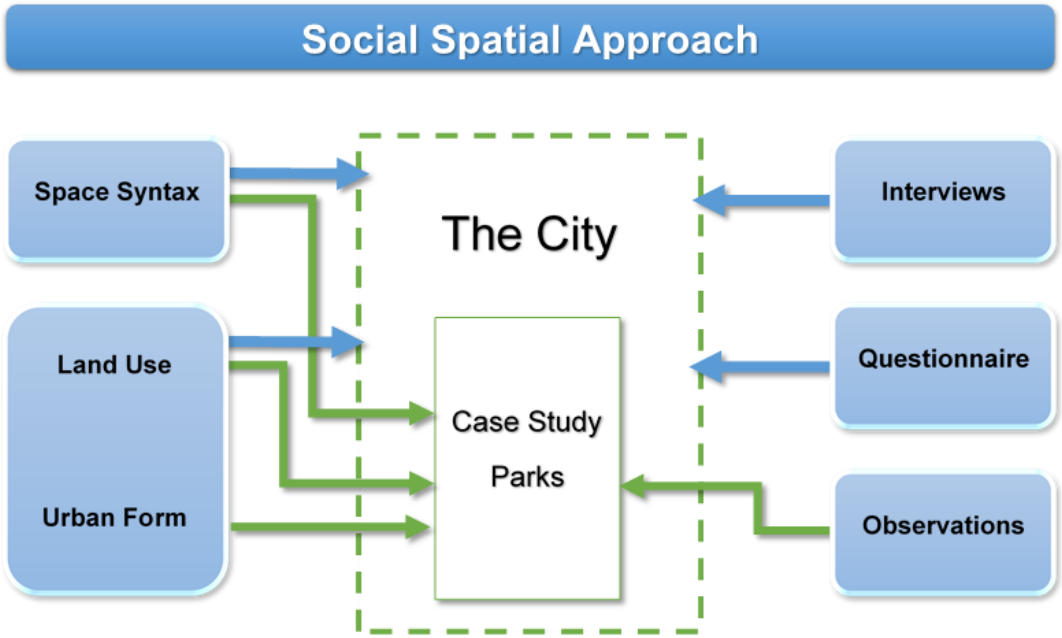


Figure 3.3 The methodological approach: The applied techniques within their context

3.4.1. The Spatial Study

The purpose of the spatial study was to explore the physical and spatial structure of Hama and its public open spaces. This involved land use and urban form surveys to analyse how the urban land is used and examine the physical context of the case study parks, together with space syntax analyses to explore the spatial structure of the city, its integration values and its impact on people's behaviour, and pedestrian movements. The spatial analysis was undertaken for the city and local contexts because an understanding of the structure of Hama is important in understanding the context of the selected parks. (Figure 3.3)

3.4.1.a. Land Use and Urban From Surveys

Land Use Survey

Land use can be considered as one of the key elements of settlements (Carmona et al., 2003). Conzen (1960) argues that introducing new uses within settlements often leads to renovation and creation of new buildings, plot merging and sometimes to changes in the street pattern. Land use surveys provide a clear picture about the built up area and open space in any city, they offer information about the various land uses, their intensity and relationships.

Land uses in Hama were studied by conducting a land use survey at the city scale and also for the case study areas and their immediate surroundings. The land use study was undertaken using the land use documents obtained from the Department of Urban Organization in Hama City Council during the field trip in 2010. From these a map of the land uses in the city with the location of the case studies was prepared by the researcher.

The various land uses in the city were studied to understand the physical structure and to investigate the factors that had an influence on the land use distribution. The land use survey involved an examination of the topography of the city to illustrate how it has affected the land use, in addition to an explanation of how the built up area in the city has evolved over time since the Roman era, and what are the proposals for the future of the city. Moreover the reasons, which have caused the land use pattern to emerge were discussed.

The land uses around the selected case studies, the parks, were analysed in detail to understand the immediate surrounding context. The researcher visited the selected parks (2010 and 2011), walked around the parks and took notes and photographs of the various land uses. Maps of local land uses were then prepared and supported by the photographs. The maps showed an approximate percentage of the various land uses around the parks and the dominant land use. A review of the background of each park was prepared based on the field surveys.

Urban Form Survey

Urban form elements- streets, street blocks, plots and buildings are the main components of all cities in which they combine in specific ways to create diverse types of urban tissues that offer cities a unique character. These different types of urban tissues can also be found within the same city. Oliveira (2016) claims that urban form can be analysed at different levels of resolution, ranging from a low level in which the urban tissue includes only the streets and street blocks, to a high level of resolution in which "the tissue might include a number of details such as the construction materials of an open space or building" (Oliveira, 2016, p.8)

An analysis of the main elements of urban form reveal that plots and buildings have great influence of the character of the streets that they shape. "This character is actually influenced by the plots on one or on both sides of the street; by the buildings—by their height and by the relation between their height and the width of the street; by the way buildings are located in plots, sometimes near to the plot frontage, offering the street a higher sense of enclosure, sometimes far from the plot frontage, offering greater openness to the street; or by the 'doors' that these buildings open to the street." (Oliveira, 2016, p.15)

Urban form can be considered as the physical characteristics that structure the built-up areas, including the shape, size, density and configuration of settlements. (RTPI, 2015). An analysis of the urban form of the case studies' surrounding areas was conducted in order to investigate the physical context of the selected parks, mainly, the relation between the built form and open space, then the physical characteristics of the built form. The data were collected during the site visits to the case study parks in 2010 and 2011, which were conducted for both the urban form and the land use surveys, in which the researcher took the required notes and photographs for this analysis. Some of the physical characteristics of the built form of areas surrounding the case studies were analysed, including the typology, density, and block size, building heights, architectural style of the buildings, street width, and street frontages.

3.4.1.b. Space Syntax

Space syntax is a method developed by Hillier and Hanson (1984), which is "a set of techniques for representation, qualification and interpretation of spatial configuration in building and settlements" (Hillier, et al., 1987, p.363). Space syntax methodology aims to analyse plans to reveal the cultural norms behind their morphology, so it deals with spaces as social products rather than just physical entities.

Space syntax method is widely applied in the fields of architecture, planning and urban design. The application of this method has recently been extended to fields such as environmental psychology, geography and anthropology. The theory initially concentrated on the movement of pedestrians. However, later it expanded to include several aspects for example, shaping traffic system, estimating the potential of retail development, estimating expected crime patterns and investigating morphological and syntactic differences between diverse cultural settings (Raman, 2003 and Ratti, 2004). Space syntax analysis works at different scales: it can be implemented to analyse spatial and social characteristics and features of cities, urban spaces, and parks, through the preparation of a particular map that embraces all spaces within the study area.

According to Zhai and Baran (2013, 2016) the theory of space syntax is valuable in the sense that it offers tools that can be used to study configurational characteristics of an environment, and the possible impact of these on people's activity and perception. The theory is widely used to study both urban environment and users' movements. These configurational characteristics are said to be associated with many factors according to different researchers; they are linked with the number of leisure walking trips (Baran et al., 2008), pedestrian movement rates (Hillier et al., 1993; Zampieri, Rigatti, and Ugalde, 2009; Ozer and Kubat, 2007), route choice (Chang, 2002). However, the employment of this theory in studying the use of urban parks can be claimed to be very rare.

Zhai and Baran (2013) responded to this gap in their research, providing a framework with broad principles that can be employed to examine the configuration of urban open spaces like parks particularly in relation to people's movement in parks. However, they

point out many theoretical and methodological concerns in the application of space syntax to urban parks, such as the problem in defining boundaries of individual spaces, which raises another concern about determining configurational relations among spaces. A third concern is about visual connection and visual continuity; they suggest that in an urban park environment incongruence exists between its visual accessibility and spatial accessibility, for its users (Zhai and Baran, 2013).

Hillier and Hanson (1984) argue that highly accessible and visible spaces in the network are likely to be most inviting to social interactions, whereas segregated spaces are less inviting. Moreover, according to DETR and CABE (2000), well-integrated spaces provide economic value, by producing attractive locations for different functions such as retail, cafes and other public space services, providing local employment, and reducing security costs.

Spaces syntax techniques

Space syntax techniques such as axial, convex and visibility graphic analysis use computer software. They can be used to create graphical representations, as well as producing numerical information regarding pedestrian movement levels, urban integration levels, and land use patterns (Dysyllas and Duxbury, 2001, cited in Alameddine, 2005).

The axial map has been developed as a technique to describe and analyse urban areas by considering their street networks as configured spaces. In order to generate an axial map, the spatial environment needs to be configured. Configuration is defined as, "at least, the relation between two spaces taking into account a third, and at most, as the relation among spaces in a complex taking into account all other spaces in the complex" (Hillier et al., 1987, p.363). In other words, it is divided into a set of the 'fewest and fattest' convex spaces in which all points are directly visible and accessible from all other points. Then, axial maps are constructed from the minimal set of the longest sight lines that cover the spatial configuration through its convex spaces (Hillier and Hanson, 1984).

According to Ratti, (2004) the axial map technique seems to be the most used technique at the urban level for measuring integration values. The axial map analysis determines the depth value of each line with respect to the other lines in the system and creates an analysed map, which shows the relative integration values of each street in the city. Depth value is taken as the number of spaces passed through to reach a particular space. According to space syntax studies, the higher the integration of the space, the less the depth it has in the system. (Hillier and Hanson, 1984)

The integration values can be offered at two levels: a global level, whereby each street is related to all other streets of the city, and a local level (connectivity), in which each street is related to the directly connected streets (in general, three streets). The correlation between the global measures (i.e. integration) and local measures (i.e. connectivity) is an indicator of the degree of intelligibility in a spatial environment. When there is strong degree of correlation between the connectivity and the integration of a spatial environment, degree of intelligibility in this spatial environment will be higher. Therefore, "an intelligible system is one in which well-connected spaces also tend to be well-integrated spaces." (Hillier, 1996, p.94).

This relationship between global and local measures and intelligibility is important in this research because it is established that the level of correlation between the global measures (i.e. integration) and the behaviour of individuals in environments that have high level of intelligibility is higher than in a low intelligibility environment (Hillier, 1996 and Penn, 2001). In another study Hillier and Shu (1999) concluded that there is more pedestrian movement in integrated spaces than in segregated ones.

In this study, space syntax analysis was applied at three levels, the city level, the local level, covering the urban parks with their surroundings streets, and at the park level, which covered the spatial characteristics inside the case study parks. An axial map study was undertaken to understand the spatial structure of Hama and its integration values (accessibility values), both globally and locally, in terms of the global integration of the city, and the local integration (connectivity) around the investigated parks. AutoCAD software was used to redraw a plan for Hama based on the Hama master plan obtained from Hama City Council. Depthmap software (Turner and Penn,

1999) was then used for the preparation and analysis of axial maps. In addition, axial map analysis was applied to examine the configuration characteristics of the three case studies and to investigate the integration values of spaces inside the parks, and any possible correlation between people's behaviour and the spatial structure of the studied parks.

As mentioned earlier, Zhai and Baran, (2013) produced a framework for applying space syntax to understand the characteristics of urban parks and other urban open spaces. According to their framework, urban parks include activity zones and pathways connecting them. Such elements resemble the essential elements in urban environment. All areas assigned for activity are designed in such a way to attract people to spend time participating in different activities, which is similar to the case in buildings. In pathways, however, the case is different because they are more like streets in the sense that the main purpose is circulation. It is worth mentioning that, as stated earlier, space syntax theory deals with configurational characteristics of space which is the fundamental structure in the space "Based on such an emphasis and these similarities, there is a justification for applying space syntax theory in an analysis of urban park environment, particularly in the context of walking" (Zhai and Baran, 2013, p.3). They point out that there is a problem in defining the boundary of spaces for analysis in urban parks, ascribing this problem to the fact that boundaries provided by the natural elements are fuzzy boundaries. That is to say, the big trees in a pathway, for instance, are supposed to guide people through the pathway and, thus, creating the boundaries for it. However, these trees do not prevent people from going through them to explore other areas. After all, very often people do use pathways to walk on. In response to this problem, Zhai and Baran (2013) recommend that the functions of space should be used to identify the boundaries for analysis. That is to say, boundaries are associated with the functions of the space and are to be confined to spaces individuals have spatial access.

The parks in this study are considered as containers for physical activities, thus, the area of analysis included activity zones and pathways. Axial lines were drawn to represent both pathways and activity zones in the three case studies.

Although this technique seems to be rather flexible in terms of drawing axial lines to represent activity zones, it is very useful in this research because of its importance in exploring and examining the configuration characteristics of the selected parks and revealing any possible relationships between these characteristics and people's behaviour in these parks.

3.4.2. The Social Study

The social study explores the social attributes that relate people in Hama to their public open spaces. Its aim is to investigate people's perceptions of the built environment, their preferences and interpretations of public open spaces; and their behaviour in these spaces. The techniques selected to fulfil the purpose of this study involved an open-ended questionnaire survey, to understand people's perception, preferences and interpretations regarding the built environment of Hama, and particularly its public open spaces; observation and behavioural mapping surveys, to understand people's behaviour in the case study parks; and finally semi-structured interviews, to reveal professional's perceptions of public open spaces in the city. (Figure 3.3)

3.4.2.a. Questionnaire Survey

The purpose of this survey was to investigate people's perception of public spaces. The questionnaire survey aimed to provide detailed information on how users of public parks interpret the environment around them, what they think about these spaces and what kind of activities and facilities they expect in city parks.

A qualitative approach through open-ended questions was used in this survey. A benefit of using this approach is that qualitative research expresses commitment to viewing events, actions, norms, and values from the perspectives of the questionnaire's respondents. The strategy of obtaining the respondent's opinions can be expressed in terms of seeing things through the eyes of the people involved in a particular situation or event. The general image of qualitative research is that it is attuned to the notion of viewing social life as involving an interlocking series of events, which tends to place

emphasis on the changes that the processes are responsible for inducing (Bryman, 1995). Qualitative research means different things to different people, according to Denzin and Lincoln (1994, p.2). They perceive qualitative research as a naturalistic approach to interpreting and making sense of phenomena that convey meaning to people.

This approach is particularly applicable in research based on the idea that people perceive the environment in different ways, giving particular responses that may be due to contextual variables, the mood of the person or having different motivations at different times. Lang suggests that people's responses may be based on "… how they have categorised the environment and its elements, on the association they have built up over time, and on the reinforcements, they have received" (Lang, 1987, p.94).

Questionnaire design

The questionnaire survey developed from the research question and responded to the research objective of investigating people's perception of public open spaces and their preferences and interpretations. (Bryman, 2004)

The questionnaire survey was designed to move from general topic areas to more specific informational requirements. It had three parts, comprising questions about the general preferences and information about Hama; special information about the culture and social life in Hama; and information about the qualities and needs of users in urban parks. Finally, people were asked in each question about the reasons behind their responses, in order to reveal their opinions on the topic or issue covered by the question. (See Appendix B)

The questionnaire consisted of open-ended questions, which mostly elicited people's interpretations of their environment. Using open-ended questions allowed the respondent the freedom to express his/her views rather than simply agree or disagree. This method is very useful for exploring unexpected responses. One of the drawbacks of using open-ended questions, however, is the time-consumed in collecting and analysing the data (Bryman, 2004). The questionnaire survey involved a variety of people, grouped afterwards according to their age, gender, occupation and knowledge.

Sampling

Qualitative research usually deals with small samples of a population, which are situated in particular contexts and studied in depth (Miles and Huberman, 1994). According to Denscombe (1998) small-scale research should involve between 30 and 250 cases.

For the purpose of this research the snowball technique was used to determine the sampling group. Bryman states that the use of snowball sampling is more appropriate in qualitative research than in quantitative research, as the concerns that emerge about external validity and the ability to generalize are not as great in qualitative research as they are in quantitative research. He suggests that, "when the researcher needs to focus upon or to reflect relationships between people, tracing connection through snowballing sampling may be a better approach than conventional probability sampling." (Coleman, 1958, cited in Bryman, 2008, p.185).

The researcher made initial contact with 15 friends in which she sent them the questionnaire, then used them to establish contacts with others and so on. There was no locational restriction on the sample. Participants could live anywhere in the city and might or might not use the public parks.

The open-ended questionnaire was sent to the participants to complete individually and then return to the researcher. Although using a self-completion questionnaire is convenient for respondents, as they can complete the questionnaire when they want to and at the speed that they want to, it has the disadvantage that no one is present to help respondents with questions they might find difficult to understand and therefore answer. In this regard, it was ensured that the questions asked were clear and unambiguous and the questionnaire was easy to complete. (Bryman, 2008)

The survey took place in August 2010 in Hama; the number of completed questionnaires was particularly low at the beginning; therefore, the author contacted the participants, where possible, through telephone calls and emails to remind them kindly to answer the questionnaire. Nearly 110 questionnaires were distributed, but only 65 completed questionnaires were received. During the first phase of the data

analyses another 11 completed questionnaires were received, to make a total of 76 participants, 41 males and 35 females. The participants were between the ages of 16–65+ years.

The distributed questionnaires were in Arabic, and the author then translated them into English while compiling the responses from the questions: see Appendix B for full version of the questionnaire in Arabic and English. The data collected from the questionnaire survey were analysed by the researcher in two stages:

a) compiling the responses from each question of the survey to reveal the most important factors and qualities;

b) considering participant's responses and their stated reasons and classifying them into dimensions in order to examine the likely motives behind these responses.

3.4.2.b. Observation and Behavioural Mapping

Observation is a research method, which deals with how to understand what people do in particular spatial settings. Bechtel et al. (1987) described observation as a method, which has five dimensions: behaviour, environment, time, observer, and record of observation. Behavioural observation is the recording technique that often supports an observation. According to Golicnik (2005), observation and behavioural mapping constitute a comprehensive way of collecting the evidence about 'where, how, and what is going on' in a place.

Bechtel et al. summarise behavioural mapping thus: "it is to locate behaviour on the map itself, to identify kinds and frequencies of behaviour, and to demonstrate their association with a particular site. By associating the behaviour with a certain environment it is then possible to both ask questions and draw conclusions about behaviour and its relationship to a place" (Bechtel et al., 1987, p.23).

Behavioural mapping can be defined as an objective observational method for measuring actual use of space, and to study the pattern of behaviours and physical activities in a given space, with the purpose of improving the quality of relations between people and the built environment. The key factor in conducting behavioural

mapping is that all the targeted data should be observed simultaneously and coded at precisely the same site location (Cosco et al., 2010). Behavioural mapping is mostly used in the literature to observe people in public open spaces such as parks, urban plazas, urban squares, and streets (Cooper Marcus and Francis, 1998, Whyte, 1980, and Gehl, 1996)

The focus of this research is investigating people's behaviour in the public parks of Hama, therefore the behavioural mapping survey was used in the three selected case studies to understand how people behave in these spaces, and what kind of activities (standing, sitting, walking or just hanging around) they were carrying out there. In conducting the behavioural mapping technique the author was supported by her previous experience (Alsumsam, 2008)[5].

This survey took place at different times of the year, winter and summer, throughout weekdays and weekends, and at different times of the day (Gehl, 1996). The observer recorded by symbols on one sketch plan the location of people in the spaces, and noted whether they were static or moving and what kind of activity they were engaged in. People were categorized by their gender and it was noted whether they were adults or children. In addition, a people count was undertaken at the entrances to the parks, in order to establish the volume of people using the public parks. Again, they were categorised by gender and the information was recorded in tables.

Bell et al. (2006) highlight the value of carrying out fieldwork and observations in order to fill the methodological gaps to be found in self-report techniques, such as using questionnaires and interviews. This view was one of the reasons for choosing site observation and behavioural mapping in this research. However, a few limitations were found in using observation and behaviour mapping techniques.

Taking photographs of people in public parks in Hama is not welcome, culturally, especially when there are families present. Due to the restrictions on photographing individual families, general shots were taken which illustrate the issues. As in every

[5] The author undertook observation and behavioural mapping as one of her research methods in her MSc course at the University of Edinburgh, 2008.

survey, there might have been some benefit in returning to add further photographs during the interpretation stage. However, the situation in Syria at that time made this impossible.

Observation and Behavioural Mapping records

As mentioned earlier in this chapter, observation is a research method, which deals with how to understand what people do in particular spatial settings. A behavioural map is an observational tool for recording people's behaviour. In this survey the following attributes were recorded: who is using the place (men, women, families, singles, etc.), where do they tend to gravitate (sun, shade, a particular form of setting, or everywhere), what type of activity is taking place, when they are using the space (time of day of occupancy, time of week of occupancy), and weather conditions at the time of the activity. (Cooper Marcus and Francis, 1998, p.347)

Prior to the observation survey some preparations were conducted to ensure the survey went smoothly. Although it was recognised as an uncomplicated and quickly learned technique, some preparation for the recording techniques was essential for a correct, comprehensive and systematic execution (Bechtel et al., 1987).

A list of anticipated activities was prepared in advance and left open-ended for any possible new activity to be added. The symbols for drawing behaviour maps, expressing the type of activity and gender can be seen in Table 6.4. Maps of the area were provided from the Department of Urban Organization in Hama City Council in which all the observed sites are shown with their immediate surroundings. A table, which basically address the number of people according to their gender, with some explanatory data such as date, time, and weather conditions, was prepared. In addition, a camera was used to take photos during the behavioural mapping, when possible.

The surveys were undertaken four times: twice in December 2010 (winter) and twice in August 2010 (summer). The survey was conducted on weekdays and at weekends, three times a day: morning (9:00-12:00), afternoon (12:00-18:00), and evening (18:00-22:00). Each observed park was divided into sub-areas, according to its size. Each spatial unit was observed for 15 minutes. The number of people visiting the parks was

counted at the park entrances during a 30-minute observation slot on weekdays and at weekends, and was recorded in the tables.

3.4.2.c. Semi-structured Interviews

Semi-structured, face-to-face interviews are a good source of qualitative data because they can provide further understanding (Green, 1999). The strength of qualitative research is in its exploratory nature, and semi-structured interviews allow for this approach (Creswell, 2003).

According to Bryman (2008), in semi- structured interviews the interviewer has a series of questions that are in the general form of an interview schedule; however, he/she is able to vary the order and even the wording of questions and ask new questions in response to interviewees' replies. He points out that semi-structured interviews tend to be flexible, during which the research emphases might be adjusted according to significant issues that emerge during the interviews. "The interviewee may be interviewed on more than one and sometime even several occasions" (Bryman, 2008, p.437). In line with this consideration, some of the interviewees in this study were interviewed more than once. In addition, Fellows and Liu (2005) argue that semi-structured interviews are more focussed than informal interviews, allowing the interviewer to concentrate on specific topics and issues.

This survey aimed to investigate professionals' perception of public open space, and examine their opinions as experts in the field, in addition to identifying any distinctions between their views and the views of the users. Additionally, the survey aimed to collect data to be used to understand the process of provision and management of public open spaces in Hama, and to explore the various factors that influence and affect this process.

Interview survey preparation

A short list of questions was prepared with the intention of guiding the interviewer through the conversation and ensuring that the key areas of professionals' perception of public open space quality in general and design considerations and users' needs in

particular were covered. Questions were designed as open-ended and each interview lasted around 25- 60 minutes[6]. (See Appendix C)

All interview sessions were audio recorded, which made it easy to capture and transcribe information later, except one of them, as the expert did not wish the interview to be recorded. The responses were coded, and then the results were grouped into a series of main themes with regard to the research objectives and questions.

Selection of the interviewees

The intention of conducting the interviews was to meet professionals who had experience or were involved in the process of creating and/or managing public open space in Hama.

During the second field trip, seventeen participants were interviewed from several departments involved in the processes of designing and managing public open space. The interviewees were selected according to their positions and roles in these departments. The selection of the interviewees was based on information collected during the first field trip in August 2009, when three informal interviews were conducted with the head of Hama City Council (HCC), Director of the Technical Affairs Directorate and the Head of Department of Urban Organization. The head of HCC identified the different departments involved in designing, developing and managing public open spaces and explained the general relationships between them. In addition, these data from the pilot study established the foundation for preparing the interview questions. The aims of these questions were to encourage professionals in the field (design and implementation) to talk about their experiences, perceptions, and understanding of public open space qualities in general and users' needs in particular. The questions for each interview were adapted according to the experience and background of the interviewee and new questions were added in some of the

[6] The difference in time between the interviews is because they often took place in governmental departments, where some interviewees used to deal with their daily work while answering the questions.

interviews, as appropriate. At the beginning of each interview the researcher introduced the rationale for the research.

The professionals who participated in face-to-face interviews were representatives of Hama City Council and the public and private sector in the city. They were representatives of the Department of Urban Organization (public); Directorate of Technical Affairs (public); and Public Works Department (public); designers from the Design Department (public); the contractors and implementers, and maintenance agencies (public and private).

Table 3.1 shows all the 17 professionals who were interviewed in August 2010 and a brief description of their positions and organizations.

Table 3.1 The interviewed professionals with their positions and organizations.

Interviewee	Position	Nature of Organisation
M A	Manager	Directorate of Technical Affairs/ Hama City Council (HCC)
Y D	Manager	Design Department/ HCC
F A	Architect (Designer)	Design Department/ HCC
R A	Architect (Designer)	Design Department/ HCC
R J	Architect (Designer)	Design Department/ HCC
A S	Engineer (Designer)	Design Department/ HCC
A A	Manager	Department of Urban Organization/ HCC
H S	Architect	Department of Urban Organization/ HCC
A D	Manager	Landscape Directorate/HCC
F B	Engineer	Landscape Directorate/HCC
M A	Engineer (Surveillance)	Public Works Department /HCC
M J	Civil Engineer (Surveillance)	Public Works Department /HCC
R W	Technical officer (Surveillance)	Public Works Department /HCC
L T	Architect (implementation officer)	The General Company for Engineering and Consulting/ public sector

H H	Engineer (implementation)	Military Organization for Housing/ Public sector
B K	Contractor (implementation)	Private Office
M H	Contractor (implementation)	Al Manhal for Environment and Development/ Private sector

In March 2011 another two interviews were held with the head of Urban Organization and the Director of Technical Affairs, in order to clarify some issues about the processes involved concerning public open spaces in Hama, which were unclear from the previous interviews.

3.5. Conclusion

This chapter has explained the strategic approach, the research method and the techniques for data collection, evaluation, interpretation and analysis used in this research. The social spatial approach, which has emerged as a comprehensive approach when analysing the quality of public open space, was used as a strategic framework to underpin this research. A case study research method that involved using both qualitative and quantitative techniques has been adopted to meet the objectives of the research and its main question. Three case study parks were selected in order to investigate the social and spatial aspects of public open spaces in Hama.

The data collection techniques, both the field work and desk study, were grouped into two categories, social and spatial. The spatial study techniques are land use and urban form, and space syntax maps, while the social study techniques are the questionnaire survey, observation and behavioural mapping techniques, and semi-structured interviews. These techniques were applied either at city level or at the level of the case study parks or both in order to understand the case study parks within their context, the city of Hama. The findings of the techniques applied are discussed in Chapter 4 (Hama City and its Context), Chapter 5 (Spatial Study) and Chapter 6 (Social Study).

Table 3.2 below provides a brief overview of the research objectives; the chosen technique; the context applied; participants in each techniques; the expected outcome of the findings from each technique, and which chapter they are discussed in.

Table 3.2 Methods of inquiry to meet the research objectives

Research Objective	Method/Techniques	Participants	Context	Location
Obj. 1: To understand the concept of public open space, its quality, and methods to improve it, and thus to provide a strategy that will help in evaluating the quality of public open space.	Literature review	The researcher	International Literature	Chapter 2: Literature Review
Obj. 2: To investigate the historical and natural contexts of Hama; to analyse the urban development and the evolution of public open spaces in the city, and to identify the factors that affect the design and management of public open spaces in the city	Literature review and desk study	The researcher	Hama city	Chapter 4: Hama City and Its Context
	Semi-structured interview	Local professionals	Hama city	
Obj. 3: To explore the physical and spatial structure of the built environment in Hama	Land use and urban form surveys	The researcher	Hama city and the case study parks	Chapter 5: The Spatial Study
	Space syntax	The researcher	Hama city and the case study parks	
Obj. 4: To explore the social aspects, in terms of people's perceptions of the built environment, their preferences and interpretations of public open spaces, and their behaviours in these spaces.	Open-ended questionnaire	The residents	Hama city	Chapter 6 : The Social Study
	Semi-structured interview	Local professionals	Hama city	
	Observation and Behaviour mapping	Users of parks being investigated	Case study parks	
Obj. 5: To evaluate the quality of the case study parks and the processes which generate and manage them, and then develop general principles for improving the quality of the parks and consequently other public open spaces in Hama.	Analysis of the main findings	The researcher		Chapter 7: Discussion

Chapter 4 - Hama City and Its Context

4.1. Introduction

This chapter begins by providing a contextual overview of Syria, with a focus on Hama city in terms of topography, climate, population, and social structure. However, the central theme of this chapter is to outline the development of the urban fabric of Hama, and the evolution of its public open spaces. The research used four periods for this analysis. These periods have been specified according to shifts under the influence of cultural exchange, technology, and changing political and economic systems.

The information presented in this chapter is based on the rather fragmented literature on the history of Hama, to offer insights into the changes that have affected its public open spaces. This analysis relies on a series of photographs and a separate text, and the author has had to bring these together, as there was no coherent resource of historical diagrams and maps with text that she could work from. This is supplemented with data from the semi-structured interviews during the field trips, particularly for the most recent historical development, the post-independence period.

Finally, there is an overview of the governance process of public open spaces in Hama, which contributes to the understanding of factors that affect the design and maintenance of public open spaces in the city. This part of the analysis relies mainly on the data from the semi-structured interviews, as there was no published literature about this subject. (See section 3.4.2.c in Chapter 3)

This chapter deals with both the product and the process of public open spaces in Hama because both these elements have influence on the qualities of these spaces and the ways to improve these qualities.

4.2. Geographic Location, and Climate Conditions

Syria, officially, the Syrian Arab republic, is a country in the Middle East, located at the eastern end of the Mediterranean Sea, with an area of 185, 180 sq. km. As shown in Figure 4.1, it is bordered by Turkey to the north, Iraq to the east and southeast, Jordan to the south, and Lebanon and Israel to the southwest. The capital is Damascus.

Syria has a relatively short coastline, which stretches for about 110 miles (180 km) along the Mediterranean Sea between the countries of Turkey and Lebanon. The coastline is a narrow plain; at the rear is a range of coastal mountains and further inland an area of steppe. In the east is the Syrian Desert and in the south is the Jebel Druze mountain range.

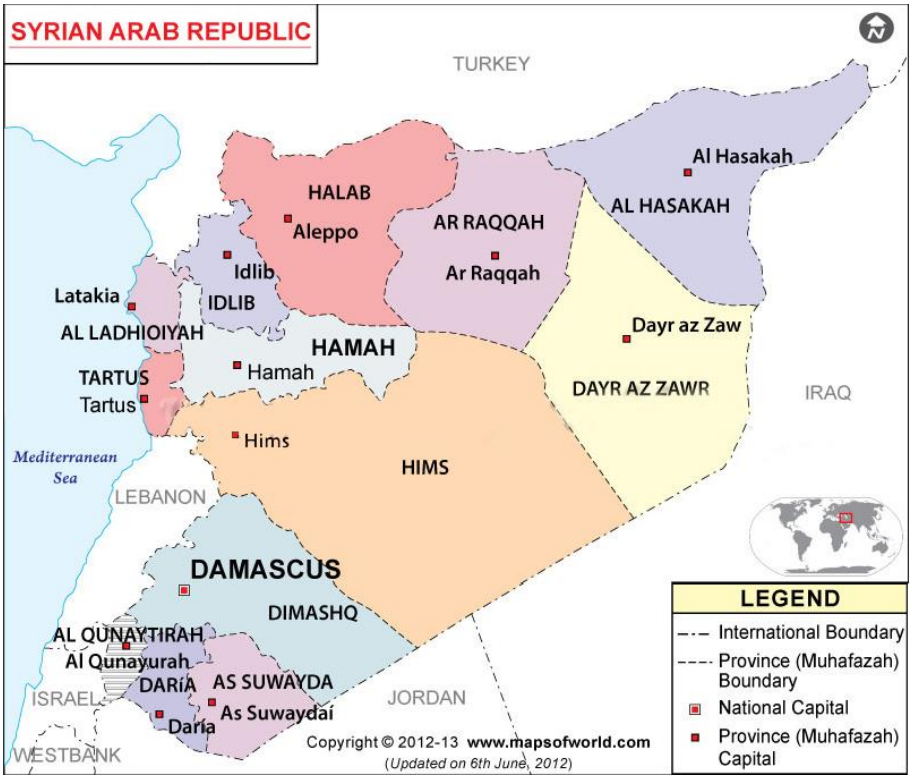


Figure 4.1 Syria Location (Source: http://www.mapsofworld.com/syria/syria-political-map.html)

Hama stands in west-central Syria, on the banks of the Orontes River, within the area of limestone hills that set the path of the river next to the Gab Plains (Alkhateb, et al., 2010) (Figures 4.2 and 4.3).

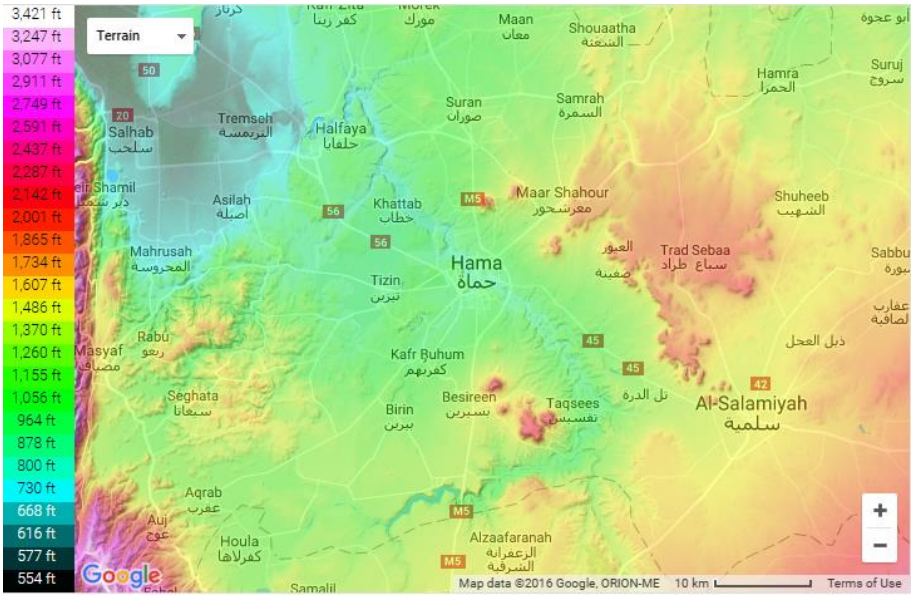


Figure 4.2 Hama regional map with topography (Source: http://en-gb.topographic-map.com/places/Syria-1310654/)

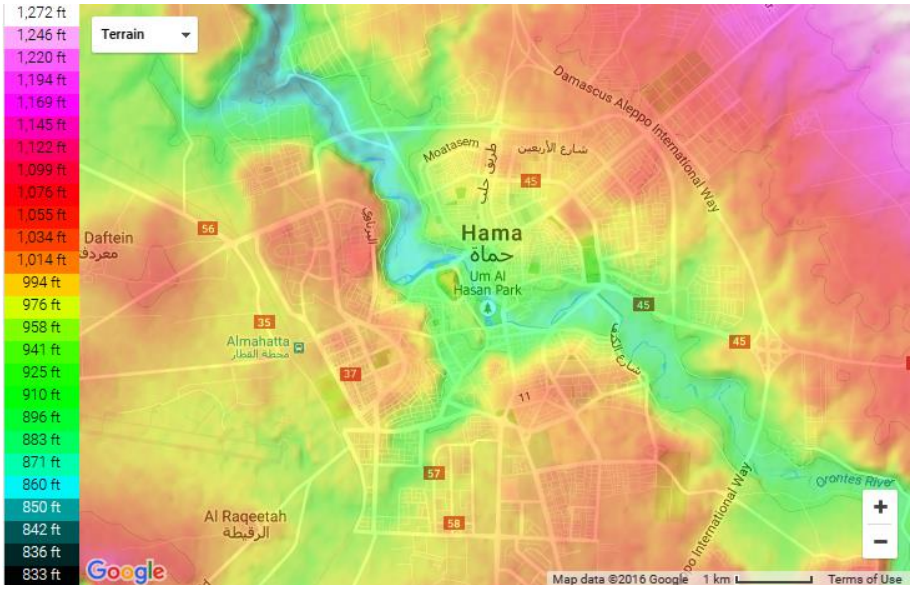


Figure 4.3 Hama local topography map: (Source: http://en-gb.topographic-map.com/places/Hama-5617852/)

The Syrian climate ranges from the Mediterranean type in the west to a very dry desert environment in the east. The coastal areas have hot summers and mild winters; the mountain regions have moderate summers and severe winters. The steppe and desert areas have extremely hot, dry summers and greatly varying winter temperatures, ranging from 21°C to below freezing. Average temperatures in Damascus range from 21° to 43 °C in August and from about -4° to 16 °C in January. (Syria, 2007)

The climate in Hama is classified as a warm Mediterranean climate, according to the Köppen-Geiger classification (Csa)[7], that is, mild with moderate seasonality. Summers are hot and dry due to the domination of subtropical high pressure systems, while winters experience moderate temperatures and changeable, rainy weather, due to the polar front (Figure 4.4). In winter temperatures range from 12.8 °C during the day to 3.3 °C overnight, while in spring temperatures reach 23.4 °C in the afternoon and fall to 9 °C overnight. During summer, average high temperatures are 35.4 °C and average low temperatures are 19.2 °C. In autumn temperatures decrease, reaching average highs of 27 °C during the day and lows of 12 °C. Total annual rainfall averages 352.7 mm (13.9 inches) (Kottek et al., 2006) (Figure 4.5)

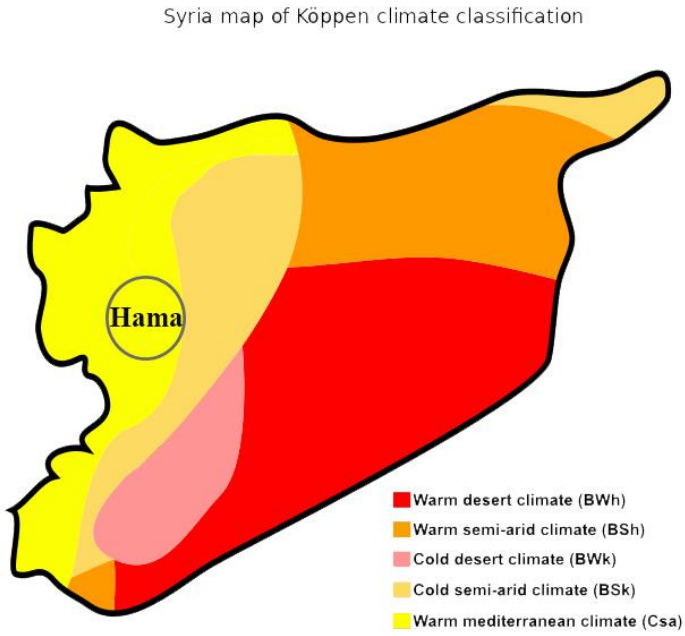


Figure 4.4 Syria: map of Köppen climate classification (Source: https://commons.wikimedia.org/wiki/File:Syria_map_of_K%C3%B6ppen_climate_classification.svg)

[7]Köppen's climate classification is one of the most widely used climate classification systems. It was first published by Russian German climatologist Wladimir Köppen in 1884, with several later modifications by Köppen, notably in 1918 and 1936. Later, German climatologist Rudolf Geiger collaborated with Köppen on changes to the classification system, which is thus sometimes called the Köppen–Geiger climate classification system. Source: https://en.wikipedia.org

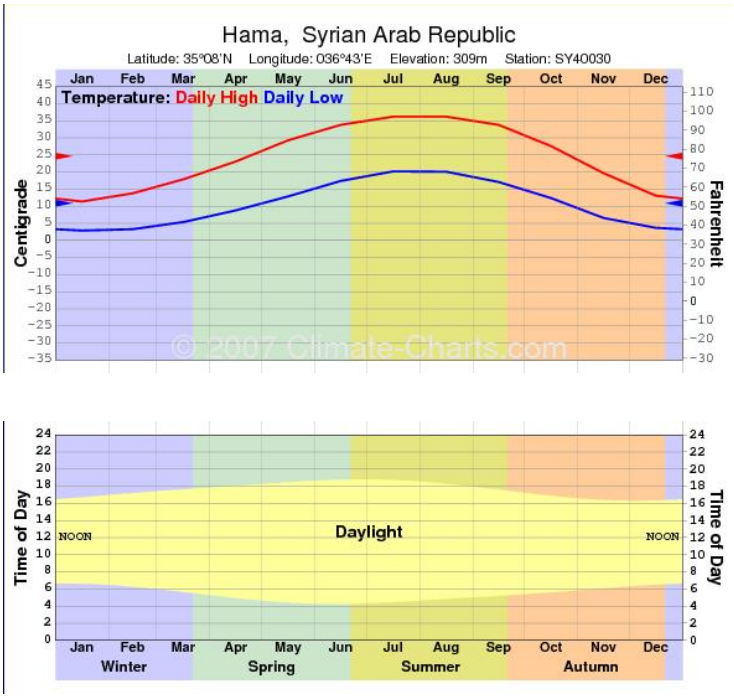


Figure 4.5 Temperature average and daylight charts in Hama (Source: http://www.climate-charts.com/Locations/s/SY40030.php)

The climatic conditions have considerable impact on the use of public open spaces and parks; therefore, in the case of Hama, spring, autumn, and summer evenings are the most comfortable times for inhabitants and to experience outdoor public activities.

4.3. Population in Hama and its Society

The population of Hama city was less than 50,000 in 1922, but by 1958 it had doubled to over 100,000. The annual growth rate in the 1960s was estimated at 2.7 percent (Alasfr, 1969; Almoufty, 1969 and Doxiadis, 1961). Later the city's growth increased even more rapidly with a high annual growth rate of 3.5 percent. Although there has been no official census of Hama since 2004, the population was estimated as over half a million in 2010. (Alkhateb et al., 2010)

Table 4.1 Hama: population growth (Source: adapted from Alkhateb et al, 2010)

Annual growth rate %	Population	Year
3.5	427369	2002
3.5	473832	2005
3.5	562763	expected in 2010

Society in Hama is considered more conservative than societies in other Syrian cities, it's people having a strong association with their culture and costume and tradition (Alkilani, 2002). Despite that, the Hamwi community has been subject to external influences and has been receptive to change. After the First World War, fundamental changes were noted in various aspects within the Hamwi society, including its social, cultural, and educational aspects. (Alasfr, 1969)

From 1850 to 1950, people lived a simple life, as in other Syrian cities, while from then until the end of the twentieth century, the Hamwi society was influenced more by the modernity, which was observed in all aspects of life in the city. They became involved with the various social, cultural, and sporting events and activities such as the art club, sports centres and cultural exhibitions and festivals.

4.4. Urban Development in Hama and the Evolution of Public Open Space

The urban form of Hama and its public open spaces have evolved over many years, and have been influenced by many cultures: Aramaic, Roman, Byzantine, Ayyubid, Mamluks, Ottoman, and French. This analysis is sub-divided into four periods; up to the end of the Roman rule: which covers the development of Hama from its early history, up to the 7th century; the Islamic period, until the end of the Ottoman Empire: this period is characterised by the dominant organic architectural form; the French mandate, a period marked by the European impact and the first impacts of modernity on Hama, and finally, the city's development from independence to the present time. In this period Hama gained its political independence and its public open spaces have evolved dramatically. Figures (4.6 and 4.7)

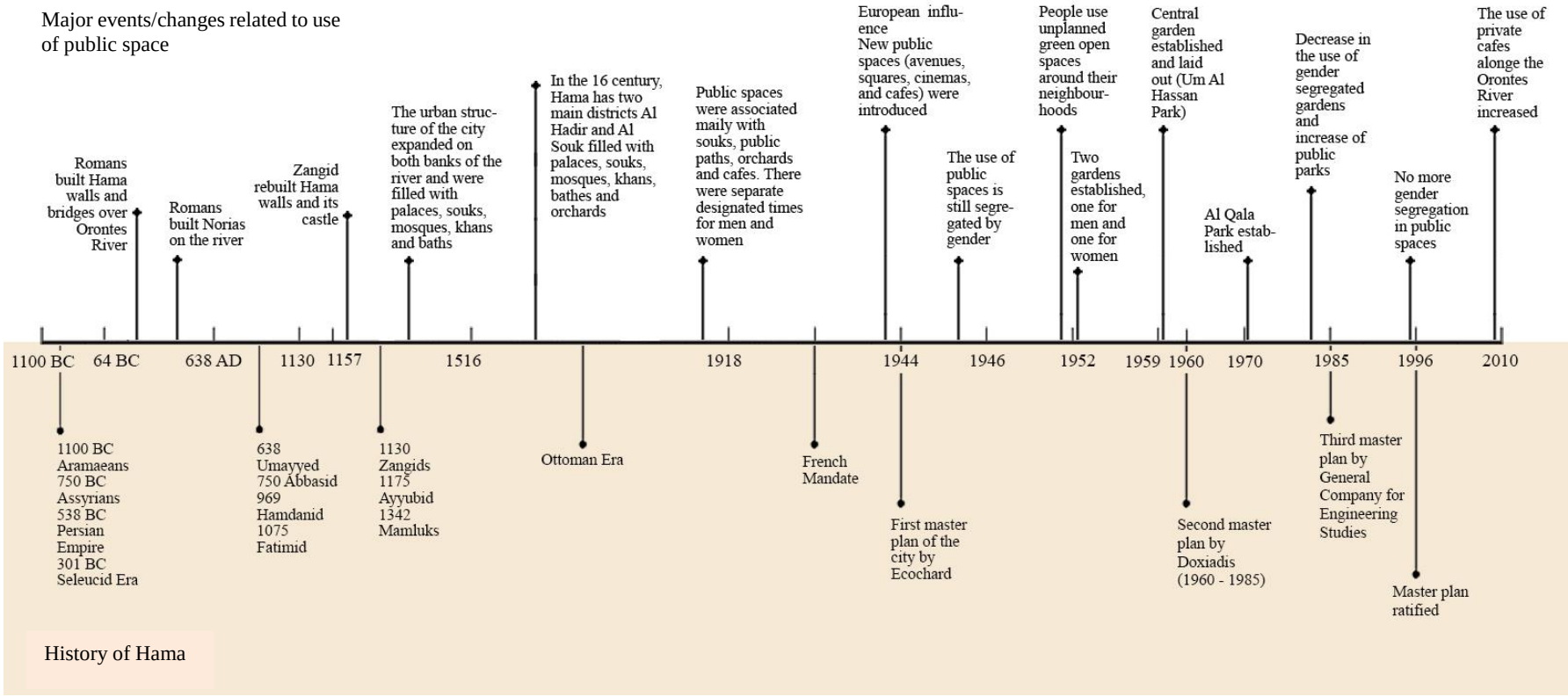
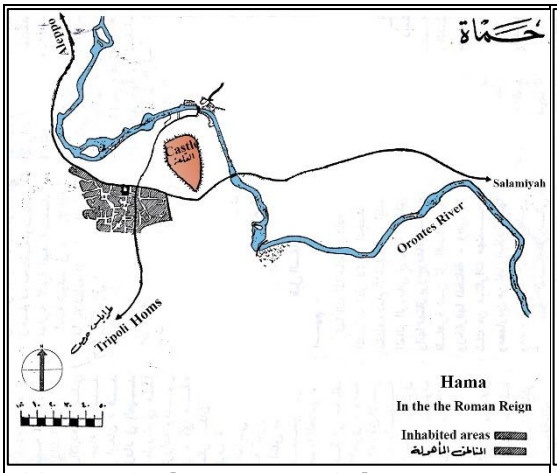
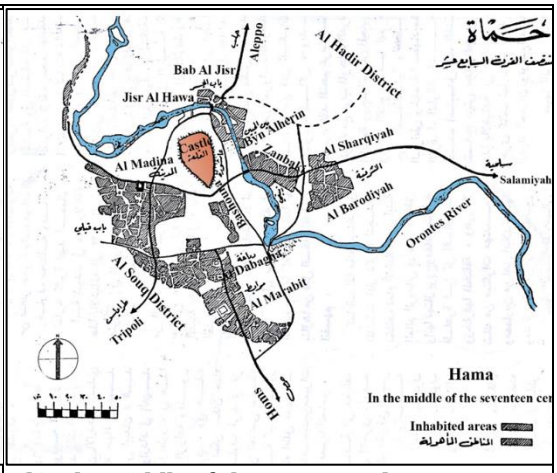


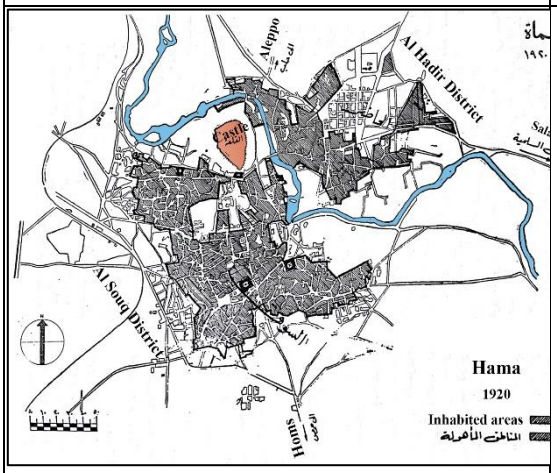
Figure 4.6 Timeline of the history of Hama with the major events/changes related to the use of public space



(a) Hama in the Roman period

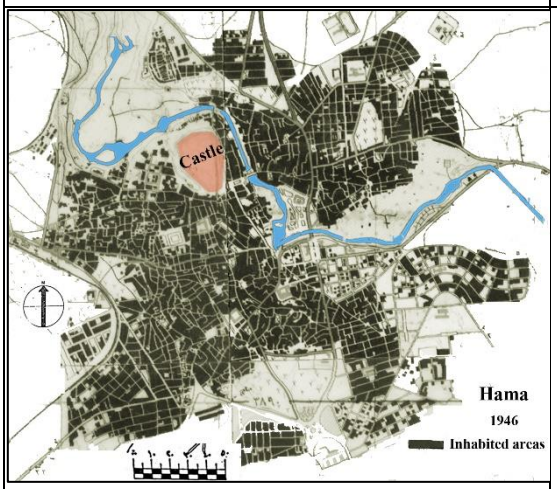


(b) The middle of the seventeenth century



(c) Hama in 1920

(d) The city expansion from 1920 up to 1941



(e) Hama map in 1946

(f) The development from 1985 until 2010

Figure 4.7 Hama urban development from prehistory to present day

4.4.1. Up to the end of Roman Rule (1100 BC- 638 AD)

The excavations carried out by the Danish mission in Hama Citadel in 1931-1938 AD revealed thirteen layers, the oldest of which can be traced back to the Neolithic era and the most recent of which can be related to the fourteenth century BC. These excavations confirmed that the core of the city, which is the site of Hama Castle, was formed in the sixth millennium BC. The core of the city then expanded until it became a walled city at the beginning of the third millennium BC, and was known as Hamath. Its population was known for agriculture and local industries. (Alkhateb et al., 2010)

It was an important prehistoric settlement, becoming the capital of the kingdom of Hamath under the Aramaeans, in 1100 BC, and was one of the main cities that flourished during their time. In 720 BC, Hamath was occupied by the Assyrians, like the rest of Syria, and was destroyed by them, then came under Chaldean rule and then became part of the Persian Empire, in 538 BC. Later, in 331 BC, Hama came under Macedonian control, and in 301 BC, became part of the Hellenistic Seleucid kingdom (Alkilani, 2002).

Hamath was re-established and rebuilt, after being destroyed by the Assyrians in 720 BC, during the Seleucid Era, particularly, by Emperor Antiochus IV Epiphanes (215-165 BC) who renamed the city Epiphaneia[8]. He constructed two streets, which divided the city from north to south and from east to west. Canals were excavated to draw water from the headwaters to the agricultural areas. The most famous canal, called *Kanatalashek*, was used to move Salamyyah' water to Apamea[9]. A new neighbourhood was then established in a Greek style, to accommodate the Greek community, which had started to colonise in the East (Alkilani, 2002).

In the Roman period, starting from 64 BC, Hama enjoyed a period of peace and prosperity, especially in agriculture, causing the city to develop and to expand in size. The urban structure of the city was developed and organized according to the Roman

[8]In Roman times, Epiphania was still known to its inhabitants as well as to their Roman masters as Hamah

[9]Apamea was first built by the king Seleucus Nikator, 301 BC.

urban regulations and influenced by their architectural style, while still characterized by the spirit of oriental concepts[10]. During this period, the Romans built Hama's walls with white stones and built bridges over the Orontes River, some of which are still in use, and the wooden water wheels, Norias, on the river which played an important role in the development of agriculture and irrigation systems. Canals were paved on stone arches for long distances, to carry the water to the houses, baths, and agricultural lands. (Alkilani, 1969) (Figure 4.8)

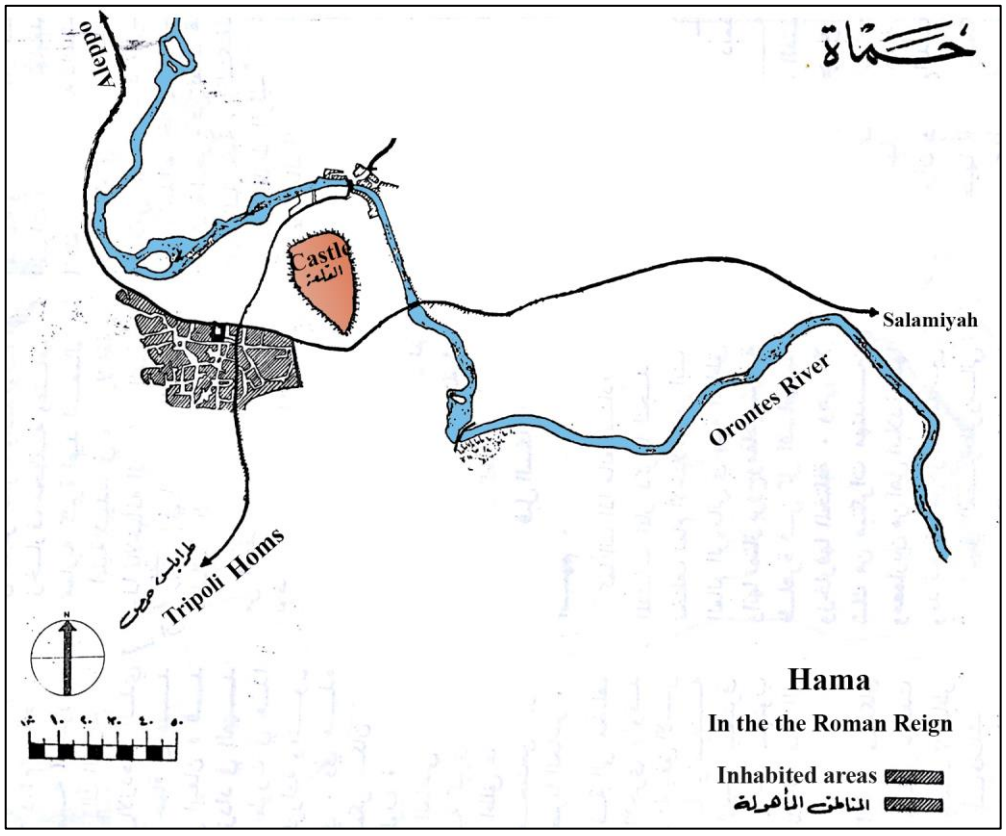


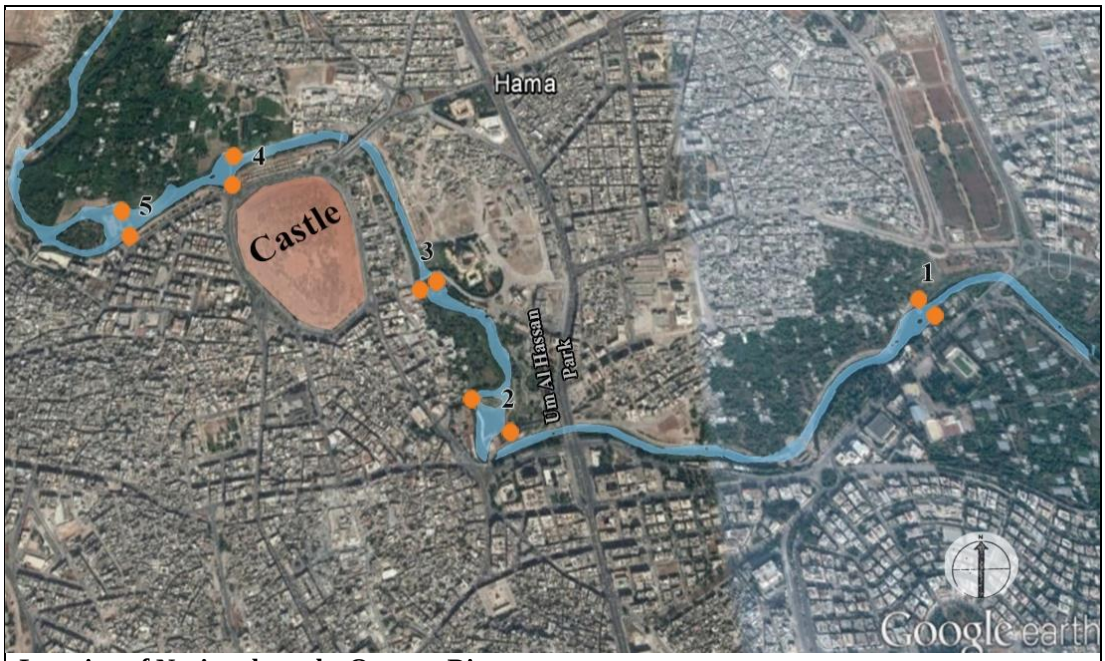
Figure 4.8 Hama in the Roman reign (Source: adapted by the researcher from Almoufty, 1969)

[10]Historians claim that the Romans did not built Hama, but rather was built by local architects and builders. Therefore, these buildings differ from the rest of the world's Roman buildings. (Source: Al Kilani, 2002)

Norias

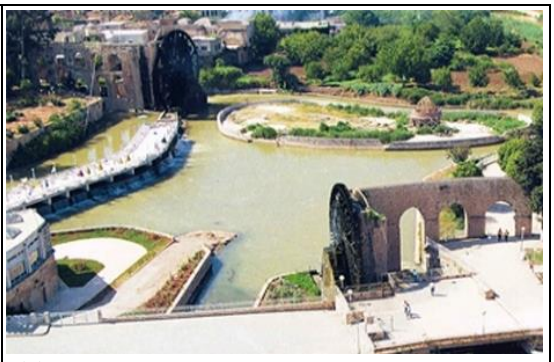
Hama waterwheels, known as Norias, are large wooden wheels on the banks of the Orontes River. When they were in use, the pots and crates on the end of these Norias raised the river water up to aqueducts at the wheel's rotation summit. Through the force of gravity, the water then flowed through a series of stone aqueducts, which distributed the water to various areas in Hama, such as homes, baths, mosques, gardens and agricultural lands, for drinking and irrigation. There was also a carefully thought out schedule for accessing the flow of water so that it could reach everyone equally. Most of the Norias measured 10-12 metres in diameter, with the largest, Al-Mohamadyah, being 22 metres, which used to provide the Grand Mosque of Hama with its water supply. (Alkilani, 1969)

None of the Hama water wheels that still stand today are from periods earlier than the Ayyubid Dynasty (late 12th to early 13th centuries). During the Mameluke period, many Norias were repaired and enlarged, and more water wheels were made. Only 17 of the original water wheels have survived into the 21st century, and they are still in good working condition. However, the water from them is no longer used (Alkhateb et al., 2010) (Figure 4.9).



Location of Norias along the Orontes River

(1)



(2)

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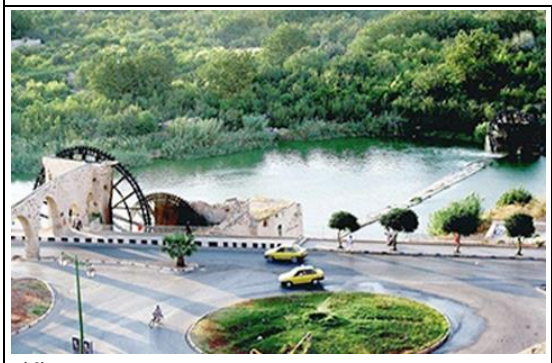


(4)

(5)

Figure 4.9 Location of Norias along the Orontes River; (1) Al Bshryat Norias (Al Arbaa Nawaeer) located in Hama east entrance from Salamyah; (2) Al Jisryah and Al Mamuryah Norias located in the city centre; (3) Al Kilaniyah Norias located in Al Tawaphrah neighbour

New neighbourhoods were built combining new buildings while holding the character of the local Hellenistic style. The Romans built stone paved road networks to connect Hama with the other cities, as well stone paved roads inside the city (Alkhateb et al, 2010). Two of these Roman buildings have survived until today. The Temple of God (Jupiter) became a cathedral, then later, at the beginning of the Islamic era, was converted into a mosque, named the Grand Mosque 'Al Jamea Al Kabir', The other is the Greek Orthodox church, the Entrance of The Otokus Cathedral, which was built on the ruins of a temple and is still in use as one of the main cathedrals in the city. Both of these were built in Al Madina neighbourhood, one of the oldest neighbourhoods in the city. (Figure 4.10) During the excavation in Al Madina neighbourhood in 1983, a huge cathedral with a total area of 2000 square metres was discovered. This cathedral was paved with rare mosaic plates that date back to 415 AD. The area of the discovered mosaic is over one thousand square metres, and is considered as one of the most beautiful mosaics in the world. Nearby the discovered site, a new cathedral was built, called the Roman Orthodox Church (Figure 4.11).

In the Byzantine era, the city expanded and several new neighbourhoods, buildings, baths, and cathedrals were established, in which architectural decorative elements were added, such as columns, crowns and decorations on buildings. (Alkhateb et al., 2010) The classical Greek culture and then the Byzantine culture lasted nearly a thousand years in Syria, particularly in Hama, under the rule of Greeks, Romans, and Byzantines. The relics left by the ancient Greek classical antiquity and the Byzantine and Roman periods were many and varied, from arches, columns, eaves, and different decorations to many architectural elements, which were reused later on buildings in subsequent ages (Alkilani, 2002).

(a)

(b)

Figure 4.10 On the left (a): Grand Mosque 'Al Jamea Al Kabir': (Source: Hama Ola City Directorate, 2010) On the right (b): Hama Old Church 'Entrance of The Otokus Cathedral': (Source: Alkhateb et al., 2010).

(a)

(b)

Figure 4.11 On the left (a): mosaic of the Phoenix that represented the concept of resurrection and immortality in the time of the Pharaohs. On the right (b): Colourful mosaic with a variety of geometric shapes. (Source: Alkhateb et al, 2010).

4.4.2. The Islamic Era until the End of the Ottoman Empire (638-1918 AD)

This era started when the Arab-Muslims took possession of the city in 638. During the Umayyad period (638-750AD), Hama expanded, when new neighbourhoods and mosques with minarets with Islamic motifs were built. Simple modifications to the building model were applied, in which the ornamental carvings and stone statues were replaced by Islamic motifs.

During the Abbasid (750-969AD) empire, Hama was neglected as were other areas in Syria, because of the movement of the Abbasid capital from Damascus to Baghdad in 750. In addition, Hama suffered from war and destruction during the Abbasid (750-969) and Hamdanid (969-1075) dynasties. Later, all of northern Syria was nominally under Fatimid suzerainty, and during this period the Mirdasids sacked Hamah. The city then came under the control of the Seljuqs until 1114, after which it witnessed fierce wars fought between competing rulers for about sixty years (Alkilani, 2002). Finally, the Zangids took control of the city in 1130, and later Nour Addine Mahmoud Zangid rebuilt the city walls and castle after the big earthquake which destroyed the city in 1157. In addition to that, he built Al Nouri Mosques, 'Jamaa Al Nouri' (1162) and Al Nouri Hospital and 'Al Nouri Bimaristan' (1164). (Alsabouny, 1956)

Hama enjoyed a period of stability and prosperity during the Ayyubid (1175-1342) and Mamluk (1343-1516) periods. During the Ayyubid rule, King Ismail bin Ali el Ayoubi, who was a famous geographer and known as Aby Al Fidaa, built a mosque in 1326 on the east bank of the Orontes River, in the Bab Al Jisr neighbourhood, called 'Jamea Aby Al Fidaa'. The city was later known by his name as Aby Al Fidaa City (Figure 4.12).

(a) (b)

Figure 4.12 To the left (a): Aby Al Fidaa Mosque, located in Bab Al Jisr neighbourhood on the north bank of the Orontes River (Source: Taken by the author, 2010) To the right (b): Al Nouri Mosque: located to the east of Hama Castle on the west Bank of the Orontes River (Source: Hama Old City Directorate)

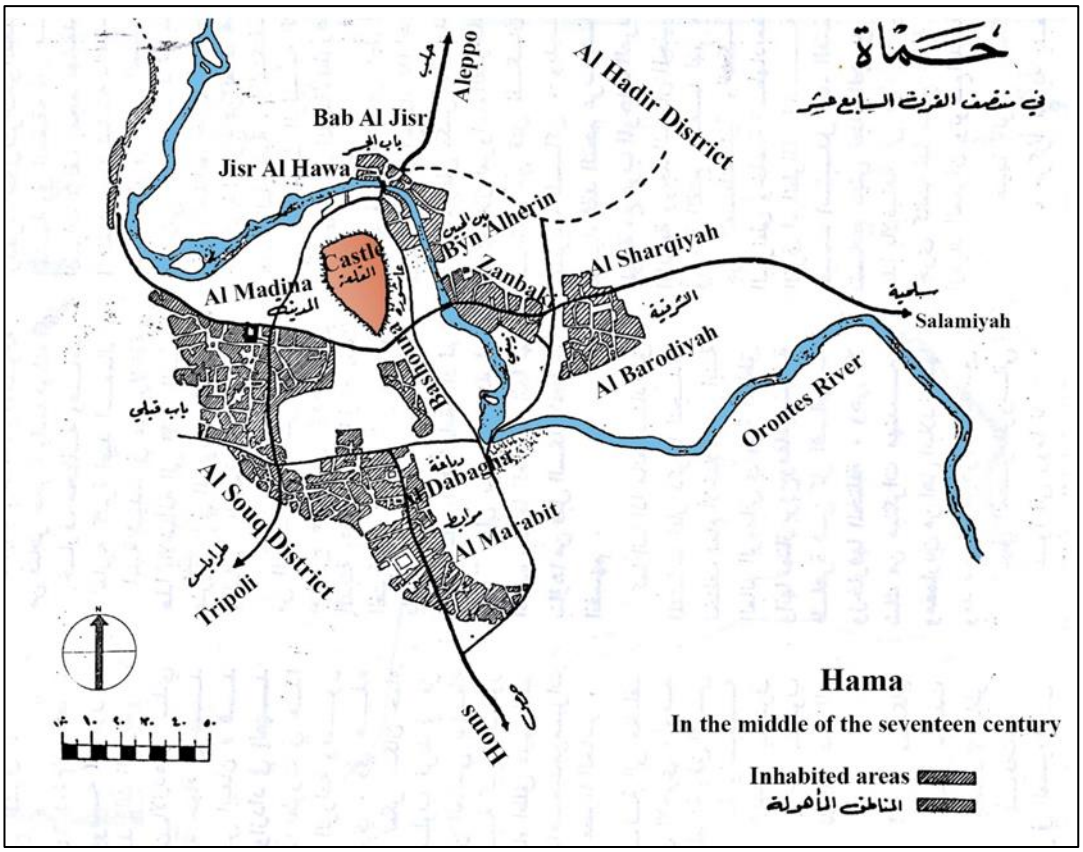


Figure 4.13 Hama in the middle of the seventeenth century (Source: Adapted by the researcher from Almoufty, 1969)

The urban structure of the city expanded dramatically, spreading to both banks of the Orontes River. New suburbs appeared on the right bank northeast of the city and were connected properly to the town by an arcaded bridge, Jisr Al Hawa, across the river. "Over the river is a great bridge built of solid blocks of stones. This goes from the lower town to the suburb." (Le Strange, 1890, p.358)

The town on the left bank was divided into a lower and an upper part, according to the topography of the town, each of which is surrounded by a wall, which was rebuilt after the big earthquake, and both were filled with palaces, souks (markets), mosques, madrasas (colleges), public baths (hammamat), khans (commercial building), and a hospital (Bimaristan), all surmounted, of course, by the castle. The lower part to the north east was called Bab Al Jisr neighbourhood (Hai Bab Al Jisr), and the upper part to the north-west, called Al Madina neighbourhood (Hai Al Madina). The urban form in Al Madina neighbourhood was more developed than in Bab Al Jisr neighbourhood, and the markets were more numerous and richer than those in the lower town (Hai Bab Al Jisr). Later, the town expanded into the Bashoura and Bab Homs neighbourhoods, and a large suburb called Al Mansuriyyah to the south was established with its long market (Souk Al Mansuriyyah). The old town, with both its parts (upper and lower), along with the new neighbourhoods, formed the Al Souk[11]quarter (Almoufty, 1969 and Alkilani, 2002) (Figure 4.13).

The traveller Ibn Jubair, in 1185, wrote a description of the town thus:

> "Hamah is a very celebrated, ancient, populous and fruitful city. To the east thereof a great river (the Orontes) runs broadly along its bed, and on it are water-wheels (dulab) in great numbers for irrigating the fields" (Le Strange, 1890, p.358)

In the period between 1515 and 1517, for defensive military reasons, the road connecting Aleppo to Damascus passed through Jisr Al Hawa between the castle and the river, and therefore the Bab Al Jisr neighbourhood grew and a market, called Souk Al Hadir, was built and used mainly by the desert people, who frequently visited the

[11] The name of this quarter "Al Souk" is related to the long market Souk Al Mansuriyyah, which known nowadays as Souk Al Taweel, because the city expanded in this direction after the souk was built.

city for goods and trade (Almoufty, 1969). During this thriving period, the use of stone in the construction was increased, and a new type of stone decoration was introduced by using black stone in the façades of the buildings, which was a distinctive architectural style in Hama (Alkilani, 2002) (Figure 4.14)

(a) Al Jamea Al Kabir Entrance

(b) Alley in Al Twaphrah Neighbourhood

Figure 4.14 Black and white: old building(s) using black and white stones (Source: http://www.syriaphotoguide.com/home/hama-old-houses and http://www.syriaphotoguide.com/home/hama-great-mosque)

In 1517, Hama came under Ottoman rule and gradually became more important in the administrative structure of the area. It was first made capital of one of the Liwas (districts) of the province of Tripoli, by Sultan Selim, and then in the eighteenth century it became affiliated to the province of Damascus. (Dumper, Stanley, and Abu-Lughod, 2007)

During the sixteenth century, Hama was an important city in the state, in terms of trade, benefiting from its strategic location as an essential passing place crossed by convoys of the annual Holy hajj (pilgrimage to Mecca) coming from Anatolia and north Syria to Damascus and Hijaz. In addition, it was the link between the two greatest trade cities in the region Aleppo and Tripoli.

At the beginning of the sixteenth century, in Al Souk quarter, the Bachoura neighbourhood was expanded and the Al Dabagha and Al Marabet neighbourhoods were established along the Al Mansouryah market (Souk Al Mansouryah) as an

expansion of the Al Mansouryah suburb. Bab Al Jisr neighbourhood expanded on the east bank of the Orontes, then the Al Hadir[12] quarter was established, with three new neighbourhoods (Ahyaa or mahallat) on the east bank of the Orontes, Al Sharqiyah, Byn Alherin, and Al Barodiyah[13] at the end of the sixteenth century. Later on, in the seventeen century, Al Zanbaki neighbourhood was established in Al Hadir Quarter. (Alkilani, 2002)

Since then Hama has been divided into two main districts, Al Souk and Al Hadir, each of which has various neighbourhoods, and its commercial centre was concentrated in the two districts, with the one in Al Souk District was the main centre. All city streets on the east and west banks of the Orontes River met in these commercial centres (Almgarbil, 1969)

Public open space evolved during the different stages of this later period described above. The urban form, which had started to develop during the Roman era became the dominant morphology up to 19th century, with distinct architectural elements that reflected the religious and military functions, as well as the social, cultural and environmental factors which were developed to meet people's needs. Due to the growth of the city, this urban morphology expanded into the suburbs outside the city walls as well. The development process of the urban growth of the city during this era had taken place depending on social and environmental factors (Saoud et al., 2014; Germeraad, 1990)

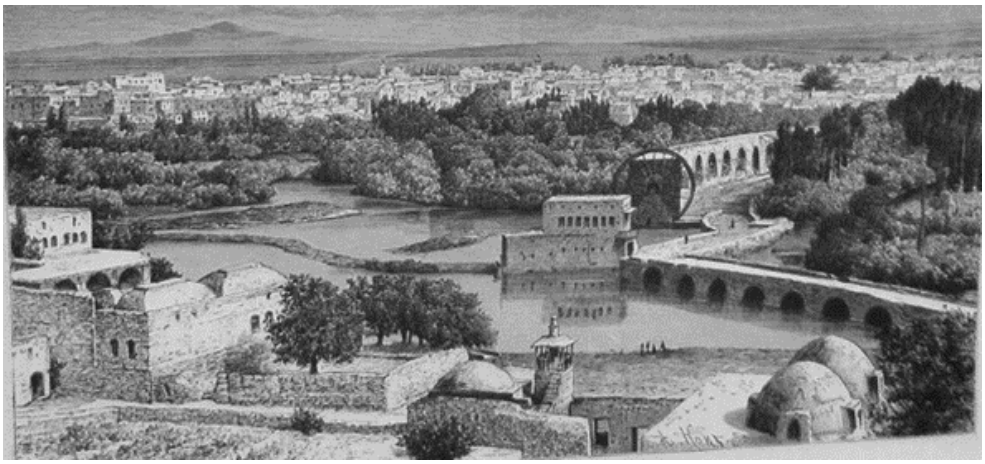
Some authors, such as Kiet (2011) and Bianca (1981, 2000) have stressed the importance of Islam as playing the major role in the development of the historic urban form of the cities during this period. For example, Bianca, 1981, states that

> "Islam is not just an abstract religious faith, but it implies an entire social order and a set of rules of conduct which virtually includes all aspects of daily life. Without this practical application Islam loses part of its meaning" (Bianca, 1981, p.36)

[12] The name of this quarter "Al Hadir" is related to the Bedouin (Al Bado) who used to come to this part of the town.to trade their products and buy their essentials.
[13] This neighbourhood was named because the population there were making gunpowder for the Ottoman state

During the early rapid spread of Islam between the 7th and 15th centuries in the Middle Eastern cities (Hama as one of them), Muslims absorbed the Egyptian, Greek and Roman urban heritage, and used them according to their needs, fully adopting others' civilisations and traditions (Germeraad 1990). According to Germeraad (ibid.), in early Islam there were no sharp differences between historical traditions and religious beliefs, and Muslims developed existing cities and initiated new developments. This development process was applied in Hama, as mentioned above, particularly, during the Umayyad period (638-750).

Up until the end of the 19th century, the urban form of the city consisted of clusters of neighbourhoods[14] whose populations gathered according to ethnic, professional, familial and religious factors. These neighbourhoods were distributed on both banks of the Orontes and around the ancient castle. The topography of the city, lying in a low valley surrounded by hills, and the presence of the river, had a great impact on the way the city had expanded. The old city of Hama was split into two districts by the Orontes River, Al Souk (south-west of the river) and Al Hadir (north-east of the river) (Alkilani, 2002) (Figure 4.15)



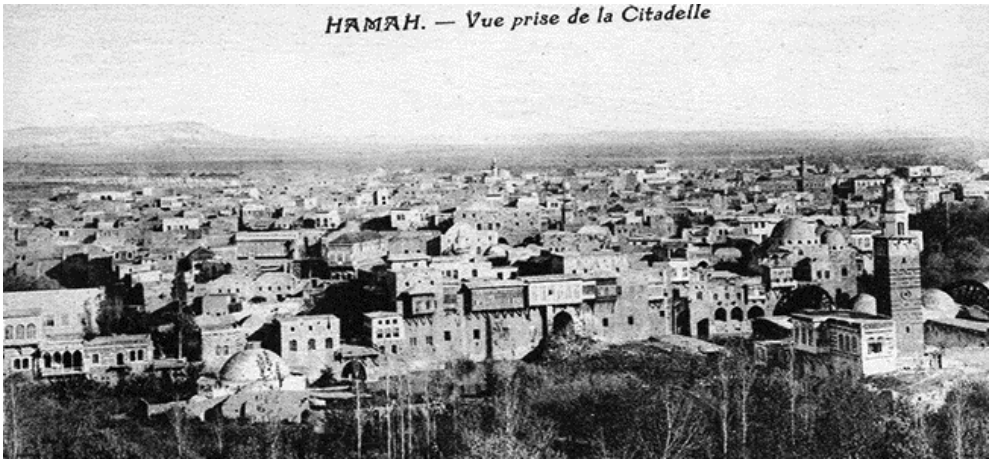
(a) View of the Orontes River, Al Sarayah Bridge, Al Jisryah Noria, Um Al Hassan Orchard and Al Hadir District at the back of the picture (Source: Hama Old City Directorate)

[14] These neighbourhoods called Ahyaa singular hai or mahallat singular mahalla.

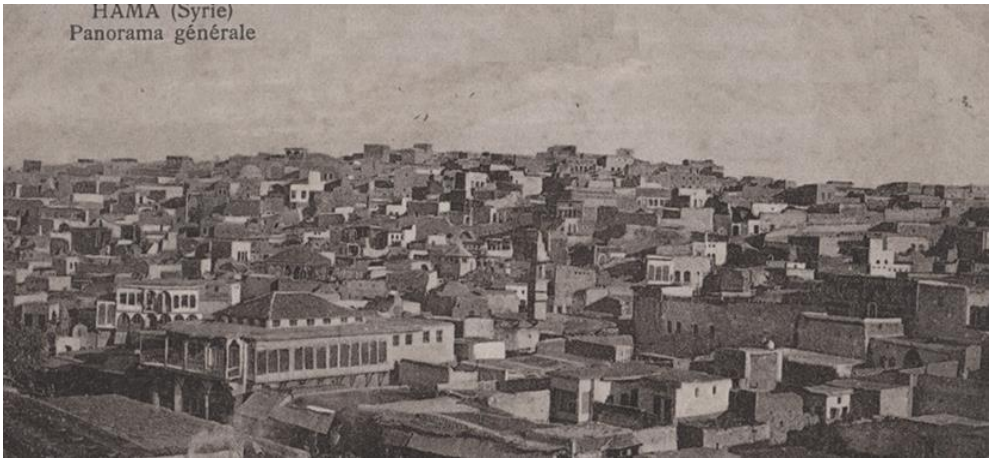
(b) View of Al Barodiyah neighbourhood in Al Hadir District (1) Orontes River, (2) Al Aranout Palace, (3) Um Al Hassan Orchard (Source: Hama Old City Directorate)

(c) View of the Castle with Bet Al Shekh Bridge and Al Zanbaki neighbourhood (Source: Hama Old City Directorate)

(d) View of the Castle with Al Madina Neighbourhood in Al Souk District (Source: Hama Old City Directorate)



(e) View from the Castle to the east bank of the Orontes River, Hai Al Kilanyah (Source: Hama Old City Directorate)

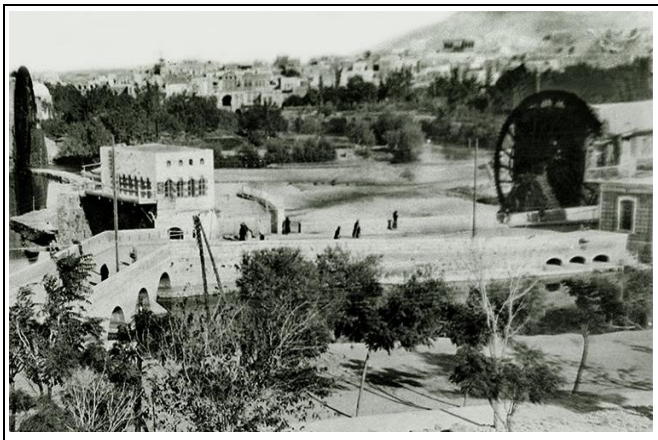


(f) General view of the City of Hama (Source: Hama Old City Directorate)

Figure 4.15 Hama's urban form during the Islamic Era

Each district was full of masjids (mosques), souks (markets), khans, palaces, public baths (hammamat singular hammam), mills (tawahin) and orchards, and public spaces were associated with these features, where residents gathered and socialised. Most of these palaces and mosques were built on the orchard fields on the bank of the Orontes River to make use of the magnificent view of the river and the Norias. The public baths and the mills were run using the river water. (Almgarbil, 1969)

Some of the mills (tawahin singular tahounh) were used later in the 1940s as swimming pools, after they lost their importance and function as mills and after being neglected for many years, such as Tahounh Al Gazalah opposite to Noria Al Jisryah (Figure 4.16)



(a)

(b)

Figure 4.16 To the left (a), Tahounh Al Gazalah (1930s) and to the right (b) people inside the building, swimming (1940s) (Source: Hama Old City Directorate)

Below are examples of some architectural buildings, which played an important role in the spatial structure of the urban form of the city during this era:

- Khan Rustum Pasha was located on the east side of Al Marabit Street and was built in 1556. It has large square courtyard and vaulted arcades on four sides with a large number of wide rooms on four sides. There was a mosque in the middle of the courtyard. It was used as military barracks at the end of the Ottoman rule and during the French mandate and called "Khan al Asker". Later, in the middle of the twentieth century a second floor was added to the building and was used as shelters and a school for orphans. The new, second floor is used nowadays as a handcraft market.
- Khan As'ad Pasha Al Azim was built in 1759 and located near the entrance of the old city, at Bab Al Balad Gate, west of Al Marabit Street and situated on the corner of Sahat Bab Al Bald. It was used also during the French mandate as military barracks, and called "Khan al Asker". The first floor of the stone, two-storey building was rebuilt during the twentieth century and is still used as an educational centre.
- Al Azim Palace, was built in 1740 by As'ad Pasha Al Azim to be his official palace as the governor. It was built on the west bank of the Orontes to the east of

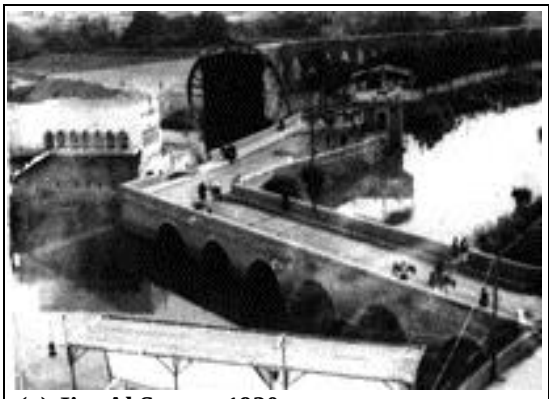
Bashourah neighbourhood. Later on, in 1956, the use of the palace was changed to a museum; Hama Museum.

- Al Arnaout Palace, was built by Mohammad Pasha Al Arnaout in the middle of the seventeenth century on the east bank of the Orontes near Al Saraya Bridge (Jisr Al Saraya) to the east of Al Baroudyah neighbourhood. Later, the use of the palace was changed from the place of residence of the governor of Arnaout to the House of the government, then to the headquarters of the civil registry, at the time of the French mandate. Later on, the rebels burned it in the Syrian Revolution in 1925, and then it was used as the central prison of Hama. Currently the remaining of the palace is only a neglected building (Alkilani, 2002). (Figure 4.17)

Figure 4.17 Top left: Khan Rustum Pasha; top right: Khan As'ad Pasha Al Azim; below left: Al Azim Palace; below right: Al Arnaout Palace (Source: Hama Old City Directorate)

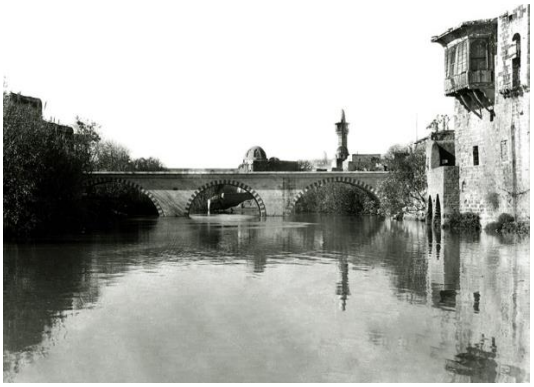
Four Roman bridges played an important role in the urban fabric of the city, connecting Hama's two districts: Jisr Al Hawa; Jisr Al Saraya; Jisr Bet Al Shekh and Jisr Bab Al Nahr. There were four main sahat (public squares) separated within the urban fabric of the city, Sahat Al Assi; Sahat Al Marabit; Sahat Bab Al Balad; and Sahat Al Hadir. See Figure 4.13 for the locations of the bridges and sahat (squares). (Alkilani, 2002) (Figures 4.18 and 4.19)

The orchards, fields and gardens on both sides of the riverbank, were beyond the city walls and were full of ornamental and fruit trees. The local inhabitants used to run these spaces as gathering places in which they would meet, chat, rest, exchange news and enjoy the beautiful scene of the flowing river (Alkhateb et al., 2010)



(a) Jisr Al Saraya 1920

(b) Jisr Bet Al Shekh 1923



(c) Jisr Al Hawa 1922

(d) Jisr Bab Al Nahr 1955

Figure 4.18 Pictures of the four Roman bridges (Source: Hama Old City Directorate)

(a) Sahat Bab Al Balad 1920

(b) Sahat Al Marabit 1923

(c) Shaht Al Assi 1922

Figure 4.19 Pictures of the main sahat in Hama in 1920s (Source: Hama Old City Directorate)

At the neighbourhood level, the primary unit of the form was the courtyard house (two storeys), which gathered to form clusters around the narrow alleys. These clusters, which were parts of the neighbourhood, were called districts, or harat. The courtyard patio accounted for about one-third of the ground area of a residential building (Moaz, 1998). The courtyard house, during the Ottoman era, consisted of a paved courtyard with some trees and a pond in the middle, which received its water from one of the Norias. Around the courtyard was a wall into which the rooms were built on one side of the wall. (Alkilani, 2002)

The courtyard house demonstrates a perfect response to the living conditions, with local building materials and appropriate techniques of climate control. The primary function of the courtyard is to regulate the temperature: in summer it forms a reservoir in which the cool night air accumulates; in winter it helps to heat the rooms to the north. This function is aided by internal vegetation, a further source of shade and freshness, and especially by the constant presence of water, which lowers the temperature and releases moisture into the air by evaporating (Morris, 1994; Bianca, 2000). Another function of the courtyard is to serve as a transition area to and from the other spaces (Germeraad, 1990).

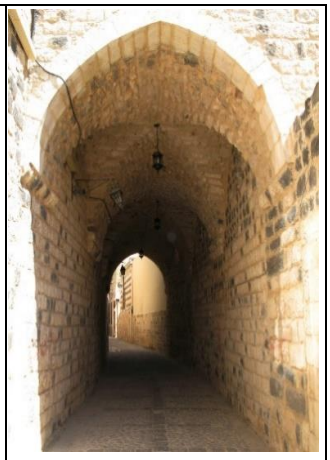
While the courtyards of the residential houses are related to the private domain, courtyards within public buildings are considered as public open space. Buildings, which are open to the public include the masjid (mosque) and khan (commercial building)

Public open spaces also took the form of weaving main streets which scaled down to narrower streets, called droub (plural) darb (singular), and from these droub on to cul-de-sacs called zouqaq, which led finally to the houses' main doors. Thus, there was a hierarchy in moving from public space (main street) to semi-public space (darb) to semi-private space (zouqaq) to private space (the residential house courtyard). Within the streets there were fountains (sabil), which were used for drinking water or washing hands and faces; these were placed at eye level at locations such as corners, intersections and near the mosques, and they played the role of landmarks. (Figure 4.20)

Each hara was provided with scaled down versions of the entire range of urban structure: a small mosque (masjid), public bath (hammam), café (qahwe) and bakery (khabaz), with a market (souk) nearby for all staples and essential products (Bianca, 2000). The courtyard of the mosque was an open space where one found lots of people praying, sitting and chatting with each other. The souks and khans were business places as well as a meeting place where people went to communicate and spend the time. They were also places, which contained indoor socialising activities (Almoufty, 1969)

(a) Zouqaq in Al Tawaphrah

(b) Two Sabils at Aby Al Fidaa Street entrance



(c) Darb in Al Tawaphrah

(d) Al Dabagh Street (main street)

Figure 4.20 Street Hierarchy (Source: Hama Old City Directorate)

Other public spaces, privately owned, were the public bath (hammam) and café (qahwe). These were meeting places for people to relax and enjoy socialising with each other. Hammam was open for men and women who lived in the neighbourhood, but with separate designated times for them, while the qahwe was a meeting place for men only to spend their time talking, playing cards, socialising and listening to a storyteller (hakawati) (Alkilani, 2002). The public bath and café were two important places for indoor socialising activities, which played a unique role in public life during that period.

Analysing the public open space of old Hama up to the end of the 19th Century reveals that there was a boundary between the public and private spaces. It also shows the gender separation in the use of public space and the hierarchy of space when moving between the two spaces. The public life and social activities, which occurred within the public open spaces were mainly in the areas near the masjid, souk, khan, qahwe, and orchards and gardens along the Orontes River bank. These spaces were used for daily gathering, socialising and occasionally for celebrations.

At the end of the Ottoman rule, Hama had developed into what it has remained, a medium-sized provincial town, important as the market for a prosperous agricultural area rich in cereals (Dumper, Stanley, and Abu-Lughod, 2007) (Figure 4.21)

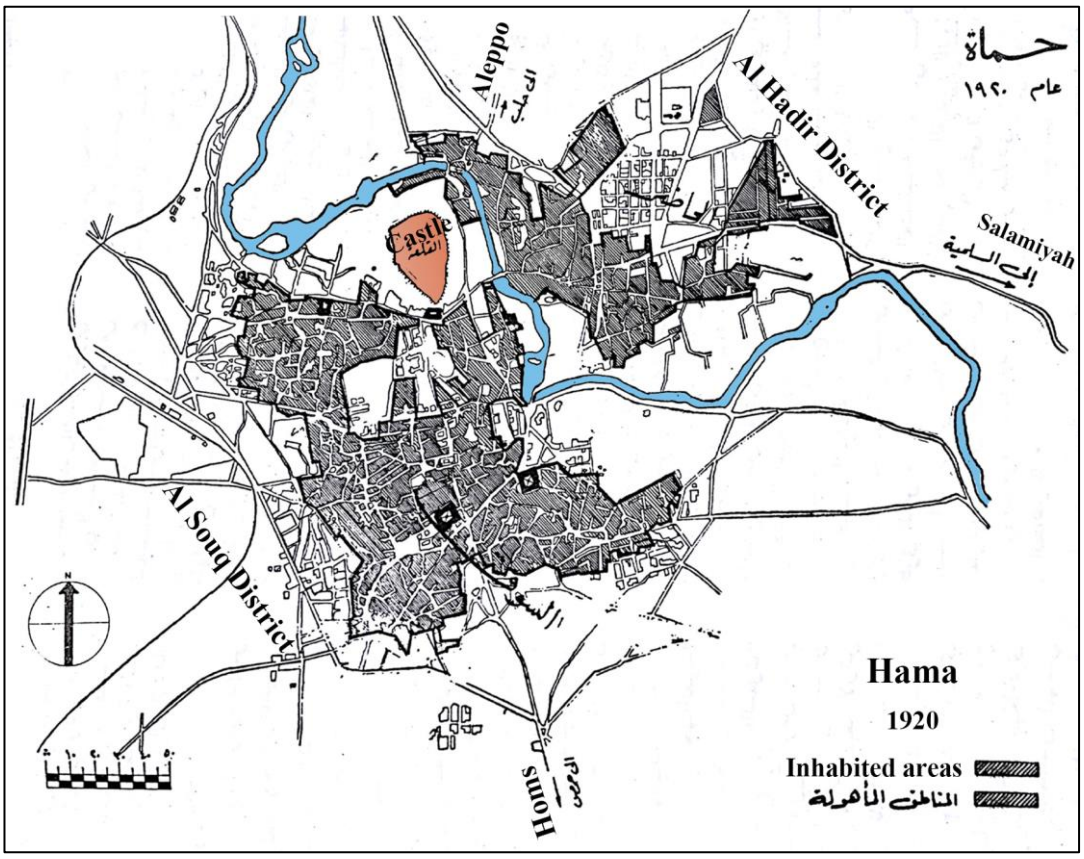


Figure 4.21 Hama in 1920 (Source: adapted by the researcher from Almoufty, 1969)

4.4.3. The French Mandate (1920-1946)

At the beginning of the 20th century, the European influence affected the urban form of Hama, like other cities in Syria, and set a stage for transition from an Islamic urban form to one affected by the European influence. During the French rule (1920-1946), the city and the public spaces were transformed significantly: new public spaces emerged, such as avenues, squares, cinemas, and public gardens and were distinguished within the layout of the city (Almgarbil, 1969) (Figure 4.22)

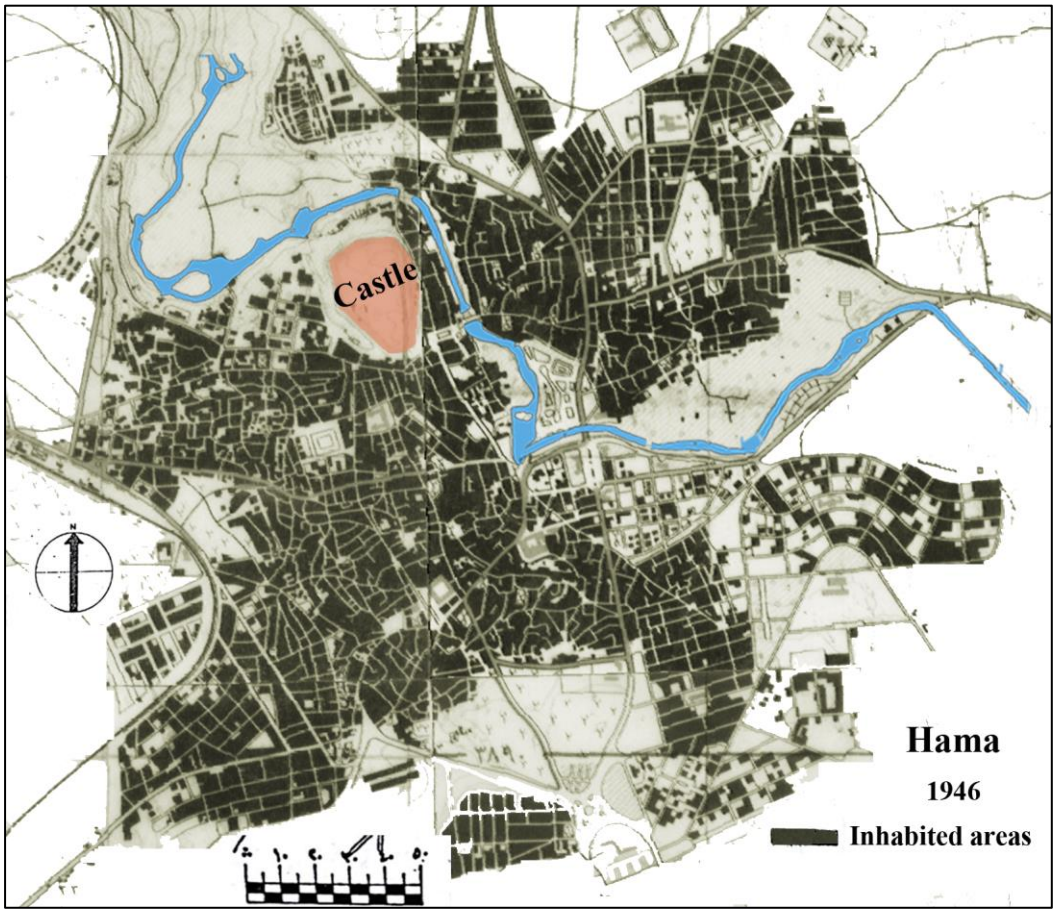


Figure 4.22 Hama map in 1946 showing the difference between the Islamic urban form and the European influenced urban form (Source: Adapted by the author from Hama Old City Directorate)

The transformation began to widely affect the spatial structure of the city by establishing a number of stand-alone public buildings, like the new municipality building (which was built in 1933). This is situated on the south bank of the Orontes

River, to the east of the government house Al Arnaout Palace. The other important building is the Grand Hotel of Hama (1935), the first modern hotel in the city, which is situated opposite to Al Saraya Bridge (Jisr Al Saraya) with attractive views of the Orontes River and Al Jisryah and the Al Mamoryah Norias. The space in front of the hotel is called Al Assi Square (Sahat Al Assi), which was the meeting place of the three main routes in Al Souk District, Al Dabagh, Al Marabet and Aby Al Fidaa Street (Figure 4.23).

Figure 4.23 Panoramic view of Hama centre 1939, (1) Hama Grand Hotel (2) Sahat Al Assi in front of the hotel (3) Municipality building (4) Jisr Al Sarayah (5) Al Jisryah Noria (Source: Hama Old City Directorate)

Figure 4.24 Jisr Al Sarayah 1940 was the main bridge in the city (Source: Hama Old City Directorate)

The movement pattern in public space witnessed new types of circulation, in the form of automobiles and buses, along with the traditional ones such as pedestrian and animal circulation. During this period, Jisr Al Saraya was the main bridge to accommodate the new elements of the circulation between the two parts of Hama, Al Souk and Al Hadir Districts. (Almoufty, 1969) (Figure 4.24)

As mentioned earlier, public spaces were evolving, during this era, and new spaces were emerging in the spatial structure of the city, like cinemas and cafés. Cinemas in Hama were introduced as early as the beginning of 1930s, when five cinemas were distributed in and around Sahat Al Assi and were fully used by local people. One of them, Al Sharq Cinema, was considered as a family cinema and had specific times for women only. During summer time, there was an open cinema in Al Foundq Café, which was located on the ground floor of the Grand Hotel of Hama and was well-known in the city, as most of the famous people used to go there. (Fedaa, 2014)

By 1944, the first master plan of Hama was prepared, by Ecochard[15], in which the expansion areas of the city were determined. Alkilani (2002) states that the plan was not comprehensive, as it was not based on extensive studies of the city and its territory, moreover, it did not specify the population nor its duration (Alkilani, 2002 and Alkhateb et al., 2010).

[15]Michel Ecochard was an architect who graduated at the Ecole des Beaux-Arts in Paris in 1931. He arrived in Syria to do his military service in 1932. He worked as a restorer in the Department of Antiquities before becoming the director of the urban planning services in Syria. (Haddad, 2009)

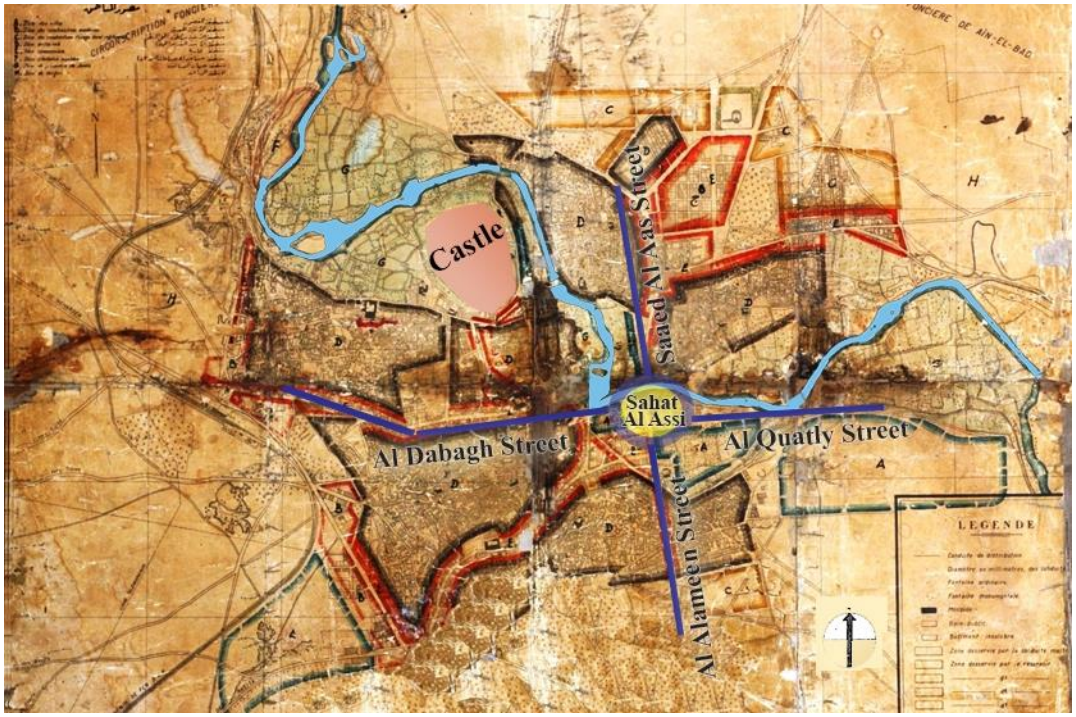


Figure 4.25 Ecochard's master plan, 1944: the expansion areas are marked with red, yellow and turquoise colours. The proposed new streets and square are marked in blue (Source: adapted by the researcher from Hama City Council)

The master plan proposed a new civic centre to the east side of the old city, on the south bank of the Orontes River. The new centre comprised of a square, Al Assi Square[16] (Sahat Al Assi), formed by the meeting of new wide straight streets connecting the city from north to south and from east to west. A new bridge, Al Abessy Bridge (Jisr al Abessy), was proposed to connect the new streets, which were to run through the city from north to south and to reduce the congestion on Jisr Al Saraya. Saaed Al Aas Street runs from the square towards the north, through Al Hadir district and continues, to connect the city with Aleppo. Al Alameen Street runs from the square towards the south, through the heart of the organic urban form of Al Souk district, and continues on to connect the city with Homs. From the east, Al Quatly Street, runs through the agriculture lands on the south bank of the Orontes River to meet the

[16] The space (Sahat) in front of the Grand Hotel of Hama was used to be known as Sahat Al Assi: later, after the establishment of the new square, the name was given to it, Al Assi Square (Sahat Al Assi); hence, people informally still use the name for both spaces, especially as they are close to each other.

existing Al Dabagh Street in Al Assi Square. Later, administrative, governmental, cultural, educational and commercial buildings were clustered around the square and along the new main streets (Almgarbil, 1969) (Figure 4.25)

The expansion zones were in the north eastern part of the city and in the south western part of the city, where the train station was located, which had been established in 1902 to connect Hama with Aleppo and Damascus.

New public open spaces were introduced within the master plan, along with avenues, squares and gardens. There was one central garden which was proposed on the north eastern bank of the Orontes River to the north of Jisr Al Saraya. The site of the garden was a private orchard called 'Um Al Hassan Orchard'. The master plan also proposed open green spaces in two places. The first location included the area along the north-eastern and south-eastern banks of the Orontes River, starting from Jisr Al Abessy onwards to the east. The second location was on the north-eastern bank of the river, to the west of the castle, near the Bab Al Nahr area (the old city gate to the river). The proposed open green spaces along the riverbanks were associated with the presence of the Norias.

An examination of the public open spaces during this period reveals that there was no great change in the use of public open spaces in the city compared to the late Ottoman period. The boundary between public and private spaces still existed as did gender separation in the use of public space, although it was more relaxed, especially within the upperclass. Hamwi residents were still holding their cultural values of privacy, despite the modernity imposed on their society by the European influence.

The public life and social activities that occurred in the public open spaces were still the same, despite the increased use of the public open green spaces available along the banks of the Orontes River as recreational spaces. People also continued to use the open spaces near the mosques, souks, and khans. (Figure 4.26)

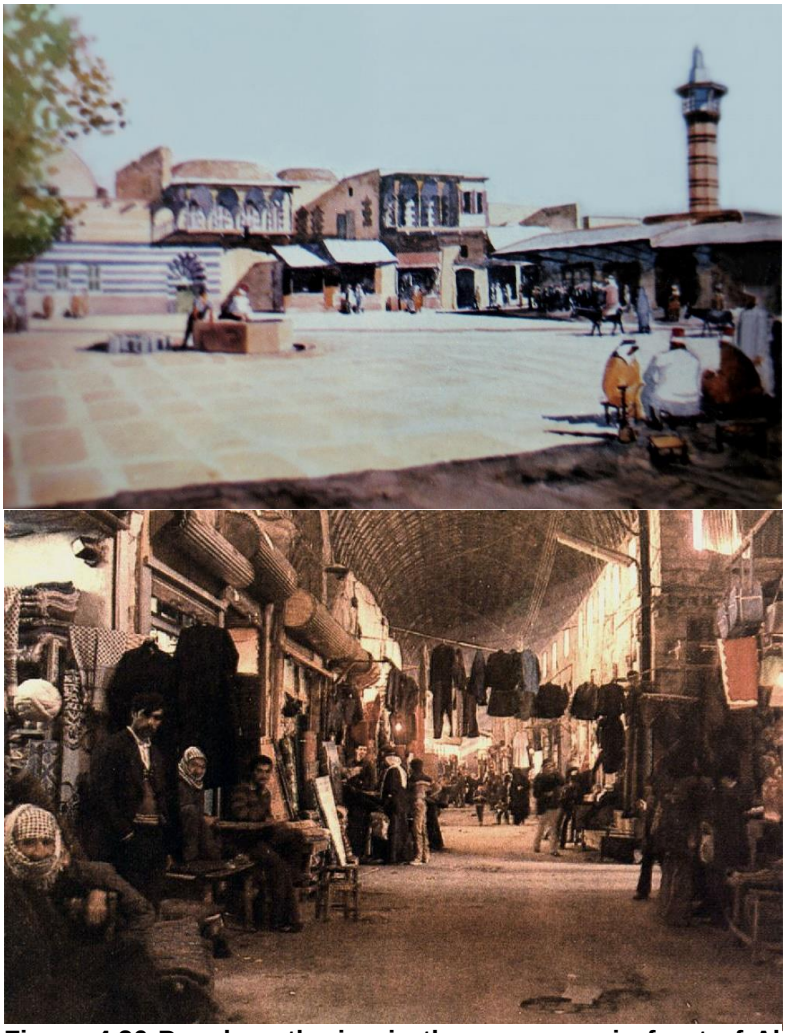


Figure 4.26 People gathering in the open area in front of Al Massoad Mosque (upper Picture) and in Souk Al Manssouryah (lower picture) circa 1940s (Source: Hama Old City Directorate)

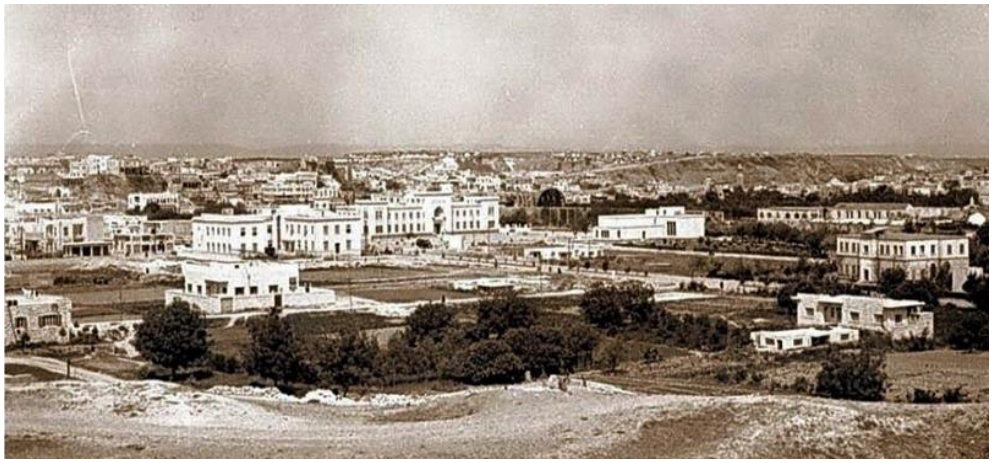
4.4.4. The City Development from Independence to the Present

In 1946, Syria became an independent republic, the Syrian Arab Republic. The development of the urban form and public open spaces during this period was sub-divided into three periods, according to the processes outlined in successive master plans. Up until 1959 the city was developed according to Ecochard's master plan. In the period between1960-1985, the city evolved and expanded according to the expansion plan prepared by the Greek company, Doxiadis, while in the period between 1985- 2010 the city continued to expand, latterly according to the new master plan drawn up in 1996. During this period, a high impact was witnessed throughout the city from the move to modernity, and particularly in its public open spaces.

The period after independence up to 1959 witnessed a rapid development in the urban form of the city due to the population growth during this period and the increased commercial connection between Hama's two districts, Al Souk and Al Hadir. The master plan was modified and the deficiencies in some parts of the plan were addressed by different decisions taken by the municipality during the period between 1944- 1957, with the city achieving its final shape in 1959. (Doxiadis, 1960) (Figure 4.27)

By 1952 new streets, Al Almeen, Corniche and Al Quatly Streets were established and connected with the existing ones, Saaed Al Aas and Al Dabagh Street, to form the central square, Al Assi Square. New public buildings, such as the government house (1948), cultural centre (Al Markaz Al Thaqafy, 1950), central post office building (Al Quatly Centre, 1949) and Hama clock tower (1952) were built around Al Assi Square and concentrated along the main streets. Jisr Al Abessy was built in 1952, and movement was therefore transferred gradually from Jisr Al Saraya to the new bridge, because the former was unable to accommodate the increased traffic movement between the two parts of the city. Later, Jisr Al Saraya was changed to pedestrian access only, after the establishment of Um Al Hassan Garden by the municipality of Hama. (Figure 4.28)

Figure 4.27 The expansion of the city from 1920 up to 1941 and 1959, respectively (Source: adapted by the author from Almgarbil, 1969)



(a) General view of the new civic centre of Hama in 1952

(b) The government house in the centre, cultural centre to the left, and central post office to the right, all gathered around the new square, Sahat Al Assi. In 1950s

(c) Sahat Al Assi with the government house and Hama Clock tower in 1960s

(d) Jisr Al Abessy (Source: Google Maps accessed 2016)

Figure 4.28 Photographs showing Sahat Al Assi with its surrounding buildings and Jisr Al Abessy circa 1950s (Source: a, b and c Hama Old City Directorate)

Figure 4.29 Newly built part of Al Madina neighbourhood to the west of Hama Castle (source: Hama Old City Directorate) in 1960s.

The expansion zones, which were specified in the master plan started to evolve gradually and new neighbourhoods were established to the north, east and west of the city. In the new neighbourhoods, the dominant residential styles were the European villas and two-and three-apartment buildings with many windows and balconies in the facades, which reflected the shift to European standards (Figures 4.29 and 4.30).

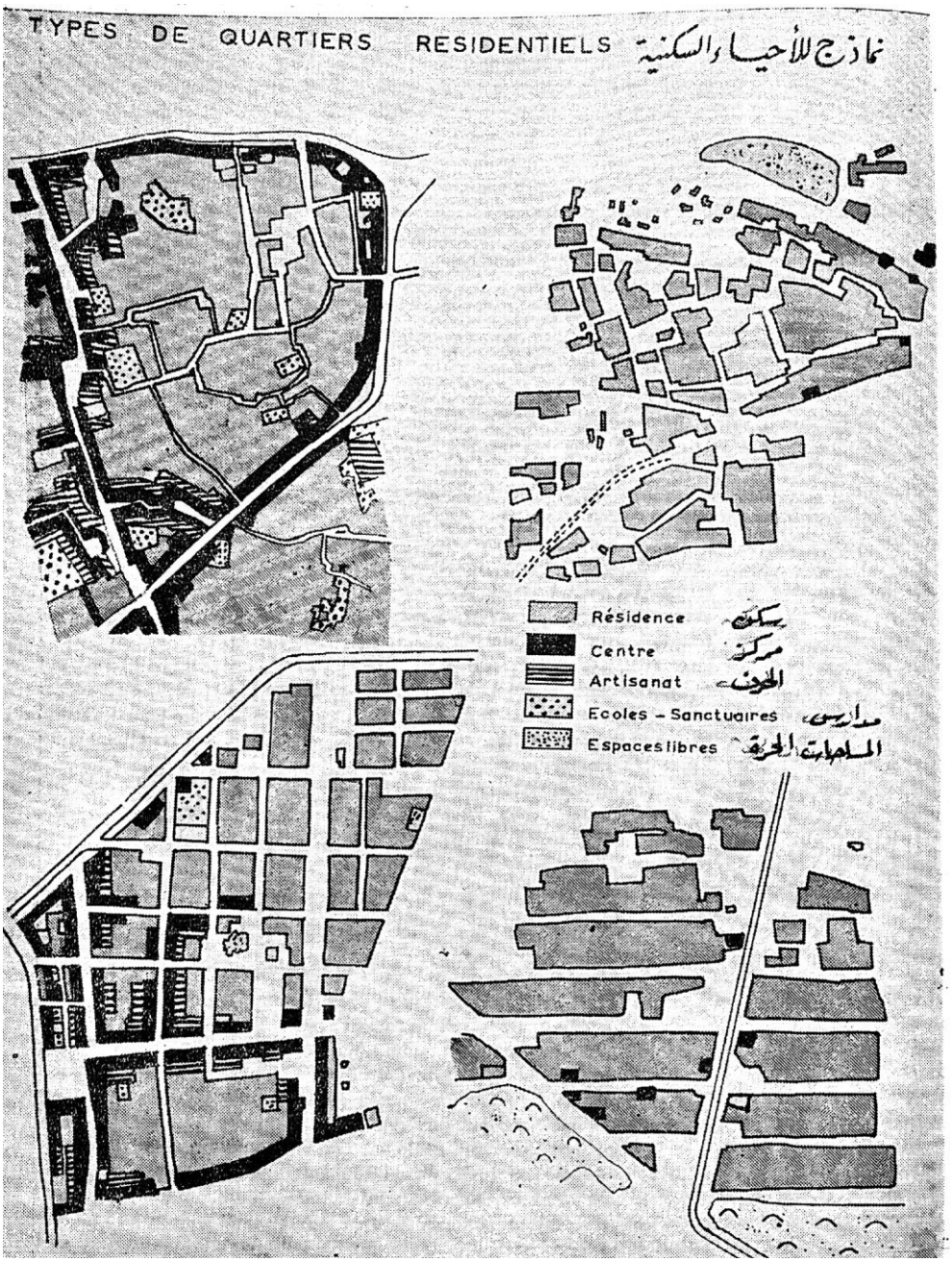


Figure 4.30 Two types of residential neighbourhood in Hama, the Islamic and the European style (source: Almgarbil, 1969)

During the period, the municipality established public open spaces in the city, some of them, which had been proposed in the Ecochard's master plan, while others were established by the municipality's decisions according to people's needs. (Doxiadis, 1961)

From the spaces designated in the master plan, the municipality planned some of the public open spaces at the beginning of the 1950s, in order to create attractive spaces for the residents to use. Parts of the green public spaces located on the east banks of the Orontes Rive were laid out by the municipality alongside Corniche Street, in addition to the green spaces which were located on the north western bank of the river in Bab Al Nahr area. Both of these organised spaces had magnificent views of the ancient Norias. Later, at the end of 1959, the municipality established and laid out the central garden, Um Al Hassan Park, which still attracts many visitors, due to its central location and the presence of Al Jisryah Noria at the park entrance (Figure 4.31).

Figure 4.31 View of Um Al Hassan Park entrance with the Orontes River and Norias and the castle (Al Qalaa) in the background (Source: Hama Old City Directorate) in 2010

The spaces established by municipal decisions were mainly two small public gardens on the south bank of the Orontes River, which were planned in 1952. The first one was the Al Markaz Al Thaqafy Garden, which is situated behind the cultural centre building and was specified for women only. The other one, Al Baladyah Garden is situated on the left side of the municipality building and was designated for men only. One of the interviewees in this study, who was enjoying the use of the garden, noted that:

> "The garden, Al Baladyah, was very pleasant and relaxing, full of numerous colourful flowers with a beautiful stone fountain in the middle" (AS[17], 2011)

Another garden, Al Mgeleh Garden, was established at the end of the 1950s, located in the middle of a high density neighbourhood in the south western part of the city, and was used by the local residents. In addition, in 1985 the municipality established a café along Corniche Street on the south west bank of the Orontes River nearby Al Bshryat Norias, called Al Arbaa Nawaeer Café. (Figure 4.32)

According to data from the interviews, in former years, people used to gather in springtime and summertime in the available public open spaces on the bank of the Orontes River and the spaces immediately adjacent to the existing neighbourhoods. These spaces were selected by the residents because they were green spaces, even in spring. Most of these spaces are situated on hills and have magnificent views of the ancient Castle (Al Qalaa), Orontes River and the Norias. People were still using these spaces up until the end of the 1960s, when most of the neighbourhoods were expanded and new neighbourhoods were established.

[17]Abdul Kadir Alsumsam (the researcher's father, born in 1947) enriched her knowledge regarding the urban development of Hama from independence to the present through his own experience of public open spaces in the city and the social life occurring there.

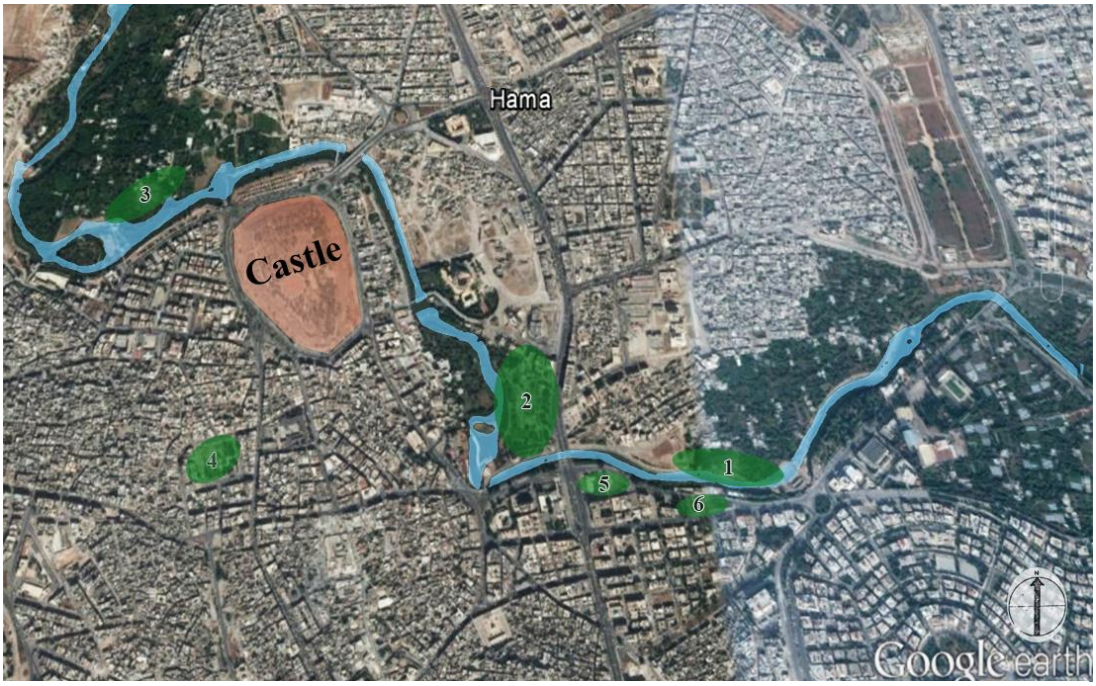


Figure 4.32 Public open spaces in the city in the 1950s - 1985, (1) spaces alongside Corniche Street; (2) Um Al Hassan Park; (3) spaces in Bab Al Nahr area; (4) Al Mgeleh Garden; (5) Al Markaz Al Thaqafy Garden; (6) Al Baladyah Garden. (Source: map adapted by the researcher from Google Earth accessed 2016)

At the end of the 1960s, due to the rapid evolution of the city in the previous few years and its expansion, along with the evolution of living conditions and transportation, the need for a new master plan was essential. The authorities first commissioned the Greek company, Doxiadis, to propose a new master plan, in 1960, with an emphasis on extension areas. The plan defined the city development from 1960 to 1985. The area of the city was expected to reach 2400 hectares, with a population of 200,000 people by 1985. The scheme was comprehensive and based on studies and statistics regarding all aspects of the city, such as housing, work, leisure, transport, climate and public open spaces. The master plan, along with the guidance note for building regulations, determined the land uses in the city (Alkilani, 2002).

However, the scheme was not a comprehensive study with regard to the region in which the city was located, and did not take into account the existing characteristics and advantages of the city. In other words, the plan proposed a grid-pattern for the street network which was not compatible with the topography of the city and some of the extension areas covered the agriculture lands (Alkhateb et al., 2010).

The plan proposed a road network, which connected the existing streets with the main axis roads that linked Hama with other cities. The main road was the north- south axis, which represented the main expansion axis of the civic centre in the future. Parallel to this axis, was a major national highway, connecting Hama with Aleppo and Homs, was established to reduce congestion from the main axis through the city. A third north-south axis was proposed to border the city on the west. Perpendicular to these three axes, three further axes were running from east to west, two of them form the north and south border of the expanded city, in addition to a network of sub-streets and six usable bridges in different locations in the city. The main civic centre extended along the main axis road in the city, which continued to be the main axis road in the new city as well, accommodating commercial and craft activities (Almgarbil, 1969) (Figure 4.33).

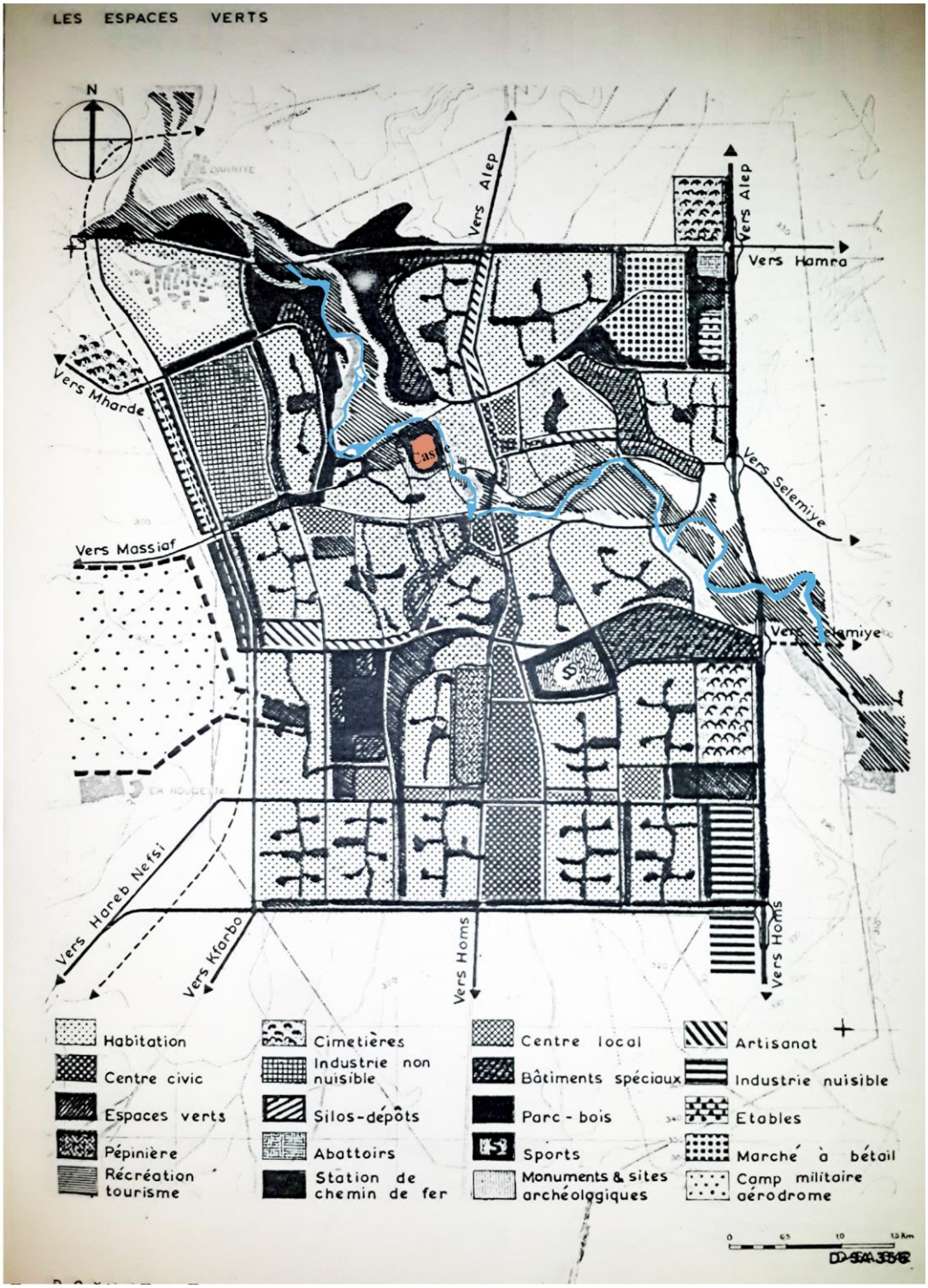


Figure 4.33 Land uses in Doxiadis' master plan (source: Doxiadis' Study, 1961)

Landscaped open spaces were specified in the orchards along the Orontes River, in addition to the parks and gardens, which were established inside the neighbourhoods. All the green spaces formed a network, which connected the whole city. Three attractive places were selected for development, in order to improve the quality of the public open spaces and fulfil the increased need for liveable spaces and to enhance tourism. These spaces were: the green spaces on the banks of the Orontes River along the Corniche; and the green spaces between the Artesian well on the right bank of the river (Al Thoura Park); and Al Bernawy hill located in the north western side on the west bank of the Orontes (Figure 4.34). The implementation of the master plan was delayed until the end of the 1960s, due to financial constraints (Almofty, 1969).

Figure 4.34 The proposed green public open spaces in Doxiadis' plan 1961: (1) Al Thoura Park; (2) spaces along the Corniche; (3) spaces at Al Bernawy hill (Source: map adapted by the researcher from Google Earth accessed 2016)

During the sixties and seventies, the city continued to expand gradually towards Al Hadir district to the north, and parts of Al Souk district to the south and west. New neighbourhoods were established, in which the new layout emphasised modern design through wide straight streets, tree-lined boulevards and linkage axes, with detached

buildings such as villas, and apartment buildings (3-4 floors) surrounded by small private gardens and sometimes with commercial activities on the ground floor. Most of the new neighbourhoods were endowed with local parks (Figure 4.35).

Public open spaces were developed throughout the city, and the street network became more coherent, connecting the city to nearby cities. Roundabouts such as Ain Alloza, Al Sabonyah and Al Nasser were constructed at the meeting of several wide streets, with governmental, administrative and educational public buildings around them. These roundabouts have fountains in the middle with green areas (Figure 4.36). Two new bridges were established in 1984, to accommodate the increased traffic movement within the street network: Jisr Al Raeass, located north-east of the castle nearby to the ancient Jisr Al Hawa and Jisr Arbaa Nawaeer, which are located near Al Beshryat Norias (Arbaa Nawaeer) on the east banks of the Orontes River (Figure 4.37)

Figure 4.35 boulevard and apartment buildings in Al Tawheed Neighbourhood in Al Hadir District in 1990s (Source: Hama City Council)

Figure 4.36 Fountain inside Ain Alloza roundabout (Source: Alkhateb et al., 2010)

Figure 4.37 View of Jisr Al Raeass on the bottom left and Jisr Al Hawa under the new bridge to the right (Source: Hama Old City Directorate)

Some of the proposed green public open spaces in the master plan, namely the parks, were organised in order to accommodate the population growth. The Corniche project along the Orontes was implemented in 1969, with a 40-metre-wide organised area. At the beginning of the 1970s, the municipality took the decision to make use of the site of Hama castle, and therefore established it to be used as a park called Al Qalaa Park. This decision was based on the continuous need for recreational spaces to fulfil people's needs. Another new park was designed and planted by the mid-1980s, Al Andalous Park, located in the Al Andalous neighbourhood, which was first established in 1972. In the same period, half of the space of Al Thoura Park, 9 hectares, was designed and planted. (Alkilani, 2002, Alkhateb et al., 2010 and Almgarbil, 1969)

In 1985, as a response to the rapid growth of the city and the need for a new expansion plan, the municipality commissioned the General Company for Engineering Studies and Consulting to prepare a master plan for the city. The plan covered the development of the city from 1985 until 2010, during which it was expected the area of the city would reach 7000 hectares, with a population of 500 thousand people in 2010 (Figure 4.38) The scheme was based on statistics and comprehensive studies of the city and the surrounding territory that affected the city. The features of the scheme were to exclude the irrigated agricultural land areas from the expansion areas, which were in the Doxiadis Plan, and to convert the main street network from a grid-pattern to a ring-pattern, which was more compatible with the topography of the city (Alkilani, 2002).

The new master plan was only ratified in 1996, and it took a long time to accomplish. This resulted in many informal settlements appearing in some locations around the edge of the city. The study of the plan concentrated mainly on the expansion areas and the main road network, which were modified to be compatible with the topography of the city, as mentioned above. The green public spaces continued to be developed and maintained according to the required needs identified by the municipality throughout this period (1985-2010).

Figure 4.38 Hama master plan, covering the development of the city from 1985 until 2010 (Source: the plan adapted by the researcher from Hama City Council)

Analysis of the existence and use of the public open spaces in the period between 1946 and 1959 shows that people had a continuous need for usable and attractive green public open spaces. However, the available organised public open spaces in the city were inadequate compared to people's needs, therefore they tended to use the available unplanned green open spaces around their neighbourhoods.

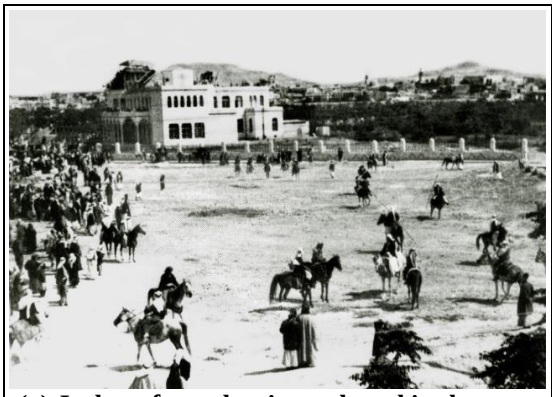
Some of the people in Hama, despite the development and modernity, which influenced the society, retained their cultural values with regard to privacy and the segregation between men and women in the use of public spaces. This was clear in the decision of the municipality to plan two small gardens in the city centre, each of which was specified for a gender. (Doxiadis' study, 1961)

Later during the 1960s and 70s, people gradually were influenced more by modernity, and the use of the central parks like Um Al Hassan and Al Qalaa Park by both genders increased in a way which led to a significant decrease in the use of the previously mentioned small gardens. Nowadays, these are hardly used. The use of the planned green public open spaces and parks in Hama, reached its peak in the 1980s and continued until the mid-1990s. Since then, and up to 2010, the use of parks, has gradually decreased, while the use of the privately owned or managed public spaces, such as cafés has increased (Interviewee M A and A S, 2011). These cafés were spread along the banks of the Orontes River, mainly close to the Norias, and their numbers have increased dramatically in the last 15 years. The deterioration in the use of the public open spaces and parks in Hama can be ascribed to different social and spatial factors, which are discussed in Chapters 5 and 6.

During the first half of the twentieth century, the main social activities occurred in the public open spaces including going outdoors for a picnic (syraan) in spring and summer time. People used to go outdoors as groups of friends or families, especially on weekends and during the Eid festival, walking to their preferred green open spaces, and having a picnic there. Women and men would sit in separate groups, chatting, eating and playing some traditional games. Children used to play around their families. Another activity, which was popular in this period was horse racing. Jockeys from the city participated in the races, which occurred in the open fields. (Alkilani, 2002)

The presence of the Orontes River and the Norias helped in creating walkable and recreational public open spaces for people in Hama. People were engaged with various activities associated with the river such as swimming, fishing, and boating. (Figure 4.39)

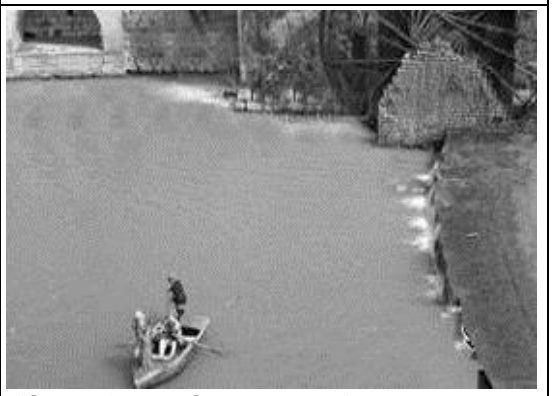
During the second half of the twentieth century people continued to go outdoors for picnics doing the same activities but mainly to the parks. The activities, which used to take place on the river gradually declined. A small number of youths still use the river for swimming, mainly, in Bab Al Naher area. The activity of horse racing has decreased and is held only in the Equestrian Club, which was established in 1983, as part of Al Rabbee Festival events (spring festival). Public open spaces\ parks in Hama, host cultural and annual festivals, such as Al Rabbee Festival and Al Zouhor Exhibition. Al Qalaa Park and its surrounding hosts the annual Al Rabbee Festival, while Um Al Hassan Park hosts an annual flower show, Al Zouhor Exhibition, stretches alongside its main paths. (Alkilani.2002)



(a) Jockeys from the city gathered in the open field behind Hama Grand Hotel.

(b) Group of women sitting in Al Dabagh hill watching the river and Norias

(c) Boating on the Orontes River



(d) Boating on the Orontes River

(e) Swimming and playing

(f) Swimming and fishing

(g) People socialising at the banks of the river

(h) Swimming and fishing

Figure 4.39 Social activities circa 1960s and 70s (Source: Hama Old City Directorate)

According to Hama City Council, by 2010 there were 145 parks and gardens in Hama, with different sizes spread over the whole city with total area of 770 hectares. The most important parks in the city were classified by the municipality as (Alkhateb et al., 2010):

- Al Qalaa Park, on the site of the ancient castle, with an area of 10 hectares;
- Um Al Hassan Park, located in the centre of the city with an area of 3.9 hectares;
- Al Andalous Park, located in Al Andalous neighbourhood with an area of 5.5 hectares;
- Al Thoura Park, located between Al Hamidyah and Gornatah neighbourhoods with an area of 18.1 hectares but only 9 hectares were planted.

Three of these parks were selected as case studies for the purpose of this research, in order to understand the use of the public open spaces and parks in Hama. The selection criteria are discussed in Chapter 3, while the selected case studies are presented and investigated in Chapter 5.

4.5. An Overview of the Governance Process of Public Open Space

This section explores the governance process through which the public open spaces in Hama are established and managed, in order to address the main actors and their responsibilities. It also explores the various factors that influence and affect the processes involved in the provision and management of public spaces and interprets how this interaction affects the public spaces. In addition, it addresses the rules of the governance process and how other factors interact with these rules.

In order to fulfil this objective, and because there were no publications available in this area, informal and semi-structured interviews were held with people in government departments and with professionals from the private and public sectors. Some of these interviews were carried out in August 2009 to establish preliminary data about the governance process. More detailed field trips were made in August 2010 and March 2011, which helped the researcher to achieve the main objective of this section (see Chapter 3).

The main actors involved in the governance process at a national level are first defined, and the focus then shifts to Hama, before discussing the rules, which govern the process. Finally, there is a wider reflection on the governance process.

4.5.1. Actors

The actors involved in the governance process of public open spaces in Hama are public authorities, the local residents and the private sector (consisting of private companies and contractors).

Public Authorities: National Government

The Syrian government is highly centralised, so central government's role ranges from the strategic level to the local level. At the national level, the State Planning Committee (SPC) prepares five-year plans for social, economic and environmental development, in cooperation with related government organisations. The governmental institutions involved in the governance process of public open space in the urban areas include the

Ministry of Local Administration (MLA) and the Ministry of Housing and Urban Development (MHUD).

Two ministries were responsible for the activity of urban planning when the main institutions of the current Syrian state were created after the Correction Movement in 1970. The Ministry of Housing and Utilities (MHU) was responsible for policy making and the Ministry of Local Administration (MLA) for implementation. In 1997, there was a proposal to transfer the activity of urban planning to be fully handled by the MLA, which was reviewed in 2000 and implemented in 2004 by Legislative Decree No. 64. (Haddad, 2009)

In 2012, two ministries were created to replace the Ministry of Housing and Construction[18] (MHC) by Legislative Decree No. 45. These are the Ministry of Housing and Urban Development (MHUD) and the Ministry of Public Works (MPW). According to this Legislative Decree, the responsibilities of the MHU were transferred to the MHUD and the responsibilities of the Ministry of Construction and Reconstruction (MCR) were transferred back to the MPW. Thus, the activities of urban planning and implementation of planning and urban development were transferred from the MLA to the MHUD. (Ministry of Housing and Urban Development, 2015)

Another institution concerned with urban development at national level is called the General Company for Engineering and Consulting (GCEC), which has its own legal personal, financial and administrative independence, and is linked to the Ministry of Public Works (MPW). The company headquarters is in the city of Damascus at the time of writing. GCEC was established in 1980, according to the Legislative Decree No. 28051 and is subjected to legislative decree No. 84 of 2005.

The main responsibilities of the company are to study, design, and supervise the implementation of engineering projects; to carry out preliminary and final receipt of

[18] In 2003 the Ministry of Housing and Utilities (MHU) and the Ministry of Construction and Reconstruction (MCR) were replaced by The Ministry of Housing and Construction (MHC) by the Legislative Decree No.7/ 2003.

projects; and provide expertise and professional advice and representation in the work of official bodies and arbitration for public-sector projects (GCEC, 2015).

This review of the main organisations at the national level reveals that urban planning and management of public open spaces is mainly the responsibility of the Ministry of Housing and Urban Development (MHUD) through its different directorates and their relationships with the concerned authorities in the governorates at local level.

Local Government

The local administrative structure in Syria is divided into administrative units, which are: 14 governorates (muhafazah), 109 cities, 284 towns, 207 villages and 854 rural units. (See Figure 4.40)

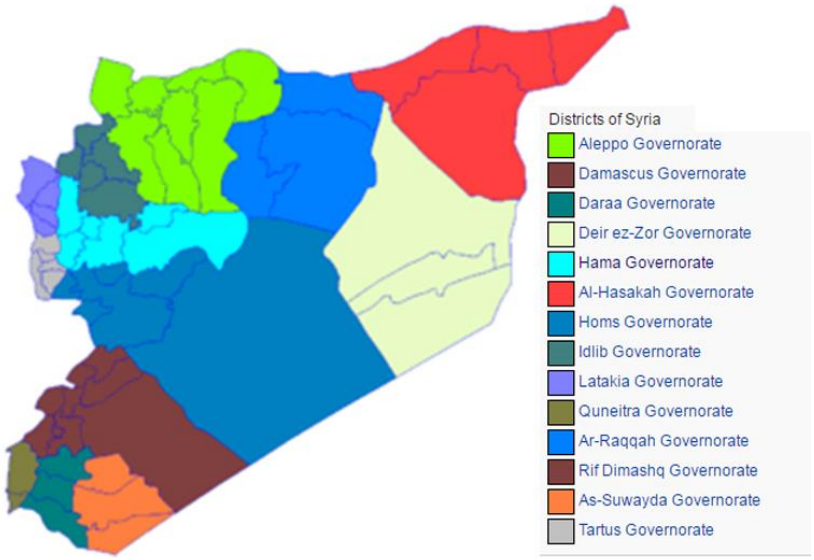


Figure 4.40 Syrian governorates (source: https://en.wikipedia.org/wiki/Districts_of_Syria

Law 107/2011 of local administration[19] rules the processes through which these administrative units work. Every administrative unit has its council, and each local council has its executive office whose members are selected by central government from among the members of the council.

Each governorate is headed by a governor appointed by decree, who represents the central authority in the governorate and works with all ministries. As a representative of the central authority, the governor oversees the work of the local authority and the central and local agencies, and supervises their application of the laws and regulations.

The structure of Hama Governorate consists of a governorate council, executive office and the different directorates. Each governorate is responsible for the development in administration, health, social services, education, public works, construction and planning aspects. Hama governorate is divided into five districts (*manatiq*): Al-Suqaylabiyah, Hama, Masyaf, Muhardeh, Salamiyah. The capital of the governorate is Hama. Hama Governorate has 13 local administration directorates. Each one has responsibility for a specific activity in the governorate (Hama Governorate, 2016).

Hama City council (HCC) as one of the Hama Governorate directorates, consists of a city council, executive office and different directorates. HCC has a direct relationship with the Executive Office in Hama Governorate, which in turn has a direct relationship with the Ministry of Local Administration (MLA).

According to the official web site of HCC, the administrative structure of the Council consists of 15 directorates, which are responsible for different activities in the city. Each directorate has responsibility for specific activity and therefore, has different departments to fulfil its activities.

[19]The Law seeks to promote decentralization, enable local councils to execute development plans, increase financial revenues for local councils, improve society at the local level and facilitate services for citizens. (Source: http://www.syrianlawjournal.com/)

Four directorates are highlighted for the purpose of this research, Directorate of Technical Affairs (DTA), Landscape Directorate[20](LD), Planning and Statistics Directorate (PSD), and Financial Affairs Directorate (FAD). These directorates play roles in the production, management and maintenance of public open spaces in Hama. Figure 4.41 illustrates the hierarchy of the Administrative structure of Hama City Council.

The DTA has eight departments[21], however, only four of these are involved in the process of public open space in Hama. These are the Department of Urban Organization (DUO), Design Department (DD), Public Works Department (PWD), and Land Service Department (LSD). The DUO is responsible for urban planning activity in the city and therefore prepares the master plan and detailed plans for the city according to the regulations and laws on urban planning and organization in Syria. The Design Department (DD) is responsible for designing new spaces and redesigning some of the existing ones, according to necessity, from the detailed plans. The Public Works Department (Daeret Al-Ashgal) is responsible for the supervision of all projects under development and ensuring that the implementation work is as designed. The Land Service Department is responsible for handling the work on site with the agreed contractor.

The Landscape Directorate (LD) consists of two departments: Design and Implementation, and Maintenance and Services. Due to the shortage of experienced staff in the Design and Implementation Department, the LD is mainly responsible for the maintenance and management of the existing public open spaces in the city such as, watering the green spaces, and maintaining seating, lighting, paths, and playgrounds.

[20] The actual translation Of "*Mouderet Al-Hadaeak*" is the Garden Directorate, which does not make sense in the UK context. Therefore, the researcher decided to use the term Landscape Directorate (LD) to make it easier for the reader to understand the context.
[21] The eight departments of the DTA are: Department of Urban Organization; Design Department; Public Works Department; Licensing and Supervision Department; Industrial Licensing Department; Topography Department; Construction Territory Department; and Expropriation Department. (Source: http://www.hama.org.sy/)

The PSD, through its departments, is responsible for checking the available remaining budget for the agreed project while, the FAD, through its Contracts Department, is responsible for delivering the project contract.

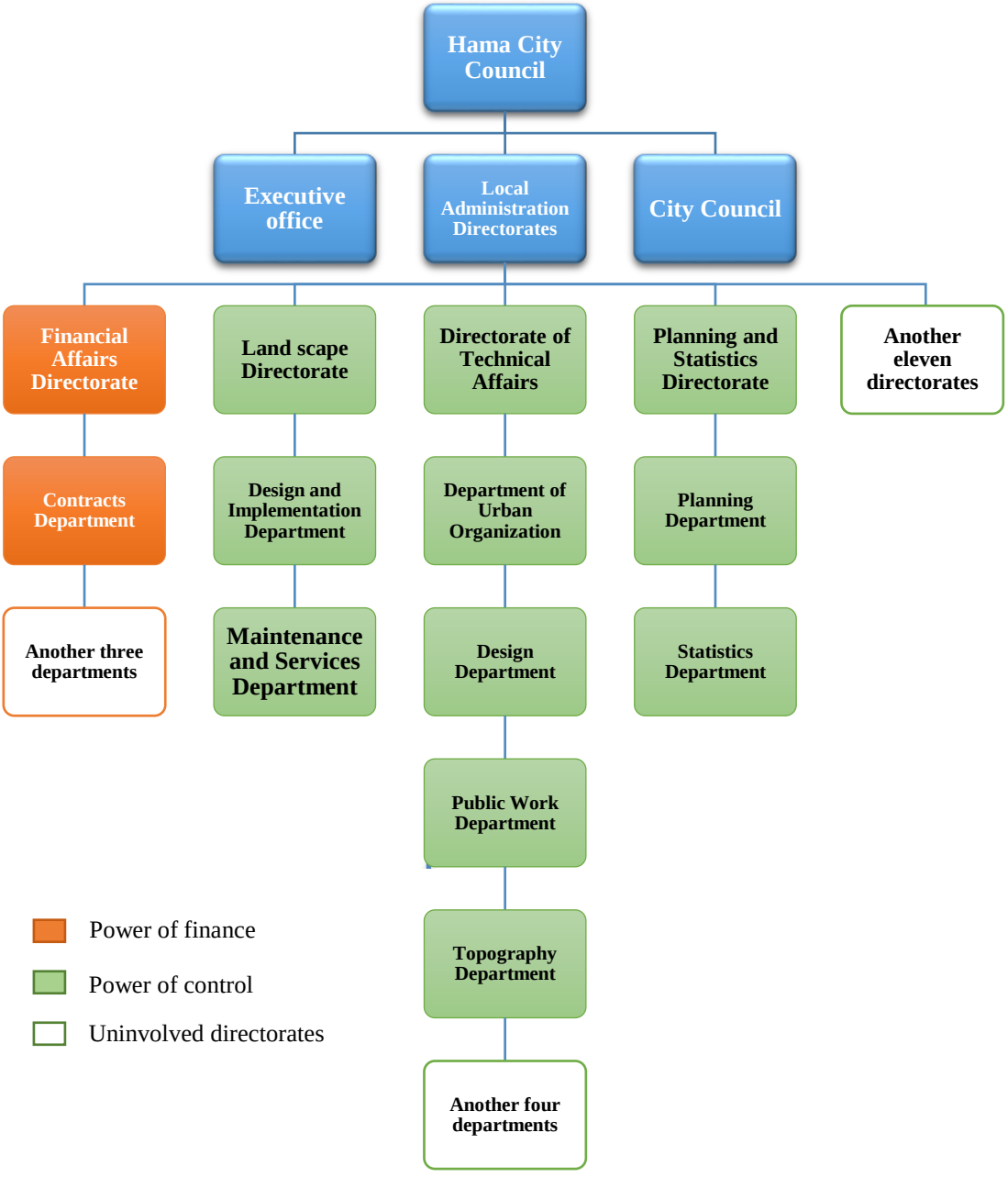


Figure 4.41 Hierarchy of the Administrative structure of Hama City Council according to HCC official website, and highlight the directorates with the control and finance power of public open space.

In summary, the local government role in the development of public open spaces in Hama is mainly divided between two directorates: the DTA and the LD. While the role of the LD is to manage and maintain public open spaces, the DTA's role is to design and manage these spaces, control development of buildings and the use of public spaces, and sometimes to participate in the supervision of projects.

The next section discusses the general rules of interaction between the actors in the governance process, focusing on regulations and procedures.

4.5.2. The Rules of the Governance Process: Regulations and Procedures

One legislation code is important in relation to urban planning in Syria, Law /5/ 1082 (amended in 2002). Law No.5 is the main law, which governs the process of urban planning and prescribes the procedure for the master plan and preparation of detailed plans.

According to Law /5/ 1982, the relevant administrative unit initiates the process of preparing master plans as well as detailed plans. Hama city council (HCC), through its Directorate of Technical Affairs (DTA) prepares a 'planning brief[22]' to be approved by the MHUD within 20 days. The DTA through its DOU is not able to carry out the procedures to produce the master plan and the detailed plans independently, because they are highly cumbersome. Therefore, The HCC, with approval from the governor, signs a contract with General Company of Engineering and Consulting[23] (GCEC) to draw up the master plan. This system works for all administrative units throughout the country (GCEC, 2016).

After receiving the approval from the MHUD, the plan is sent to the City Council to be approved and accepted. The executive office in Hama Governorate then proposes

[22]the planning brief is a document which covers issues about the current situation of urban settlements and their future urban needs. These issues are related to population statistics, density, necessary services and building needs, housing units, current and future road network and public facilities. (source: http://mohud.gov.sy/)
[23] GCEC is linked to the MPW, as mentioned earlier, and produces most, if not all, of the master plans in the country.

the plan for ratification by the MHUD. After the master plan is produced and approved, DUO prepares the detailed plans, following the same process of producing the master plan, however this requires ratification by the Governorate Council rather than by the MHUD. After the master plan has been ratified, it is ready to be implemented. The current Master Plan for Hama, which covers the development of the city from 2010 to 2025, was ratified in 2011 and is being implemented by HCC.

The Directorate of Technical Affairs (DTA) initiates the process of establishment, management, and maintenance of public open spaces at the local level, by preparing an annual plan in which it distributes the allocated budget into three categories; developing new spaces, maintenance of the existing ones, and general services and equipment provision. This budget is dedicated annually from Hama City Council's budget for public open spaces/park development.

For new park development, the DTA sends the proposed site plan, which is part of the detailed plan, to the Design Department to prepare the design. After the design completion, the DD sends the plan to the director of the DTA for approval. The plan is then sent to the head of Hama City Council to be approved and accepted. Before giving his acceptance, the head of HCC sends the application to the Planning and Statistics Directorate (PSD), to check the remaining allowance from the dedicated annual budget. If the budget is insufficient, the project will be postponed until the next funding from the governorate. In the case of acceptance, the application is sent to the Contract Department (CD) in the Financial Affairs Directorate (FAD) to prepare the contract.

There are two sets of contracts, Consensual Contracts and Advertised Contracts. The Consensual Contract is prepared by Contract Department and is signed by the City Council and the agreed public sector company without any advertisement, and then it is sent for ratification by the responsible authority. The ratification procedure depends on the contract value; if it is not more than 5 million Syrian Pounds then the contract is ratified by the head of HCC. Where the contract value is worth SYP 5-15 million, the contract is ratified by the governor, while if it is more than SYP 15 million then the contract is ratified by the Minister in charge of the MLA.

In relation to the Advertised Contract, the Contract Department prepares the project contract and puts it to tender for the private sector to execute. The contract is advertised to the public through local newspapers and on the official website of Hama City Council for 30 days. The contract is then signed by the head of the HCC and the selected contractor and is sent for ratification. The ratification process in this contract is exactly the same as for the Consensual Contract.

The Land Service Department in the DTA is responsible for handing over the project site to the contractor. The Public Works Department (PWD) in the DTA is responsible for the supervision of all projects being implemented and is also responsible for the final delivery of the project. Therefore, after the completion of the work, a committee known as the Commission for Final Acceptance[24] (CFA) is formed, to ensure that the project has been implemented as designed. The members of the CFA are exclusively responsible for the implementation of the scheme as designed (see Figure 4.42).

[24] The Commission final acceptance consist of members of the PWD who were not involved in the supervision of the inspected project.

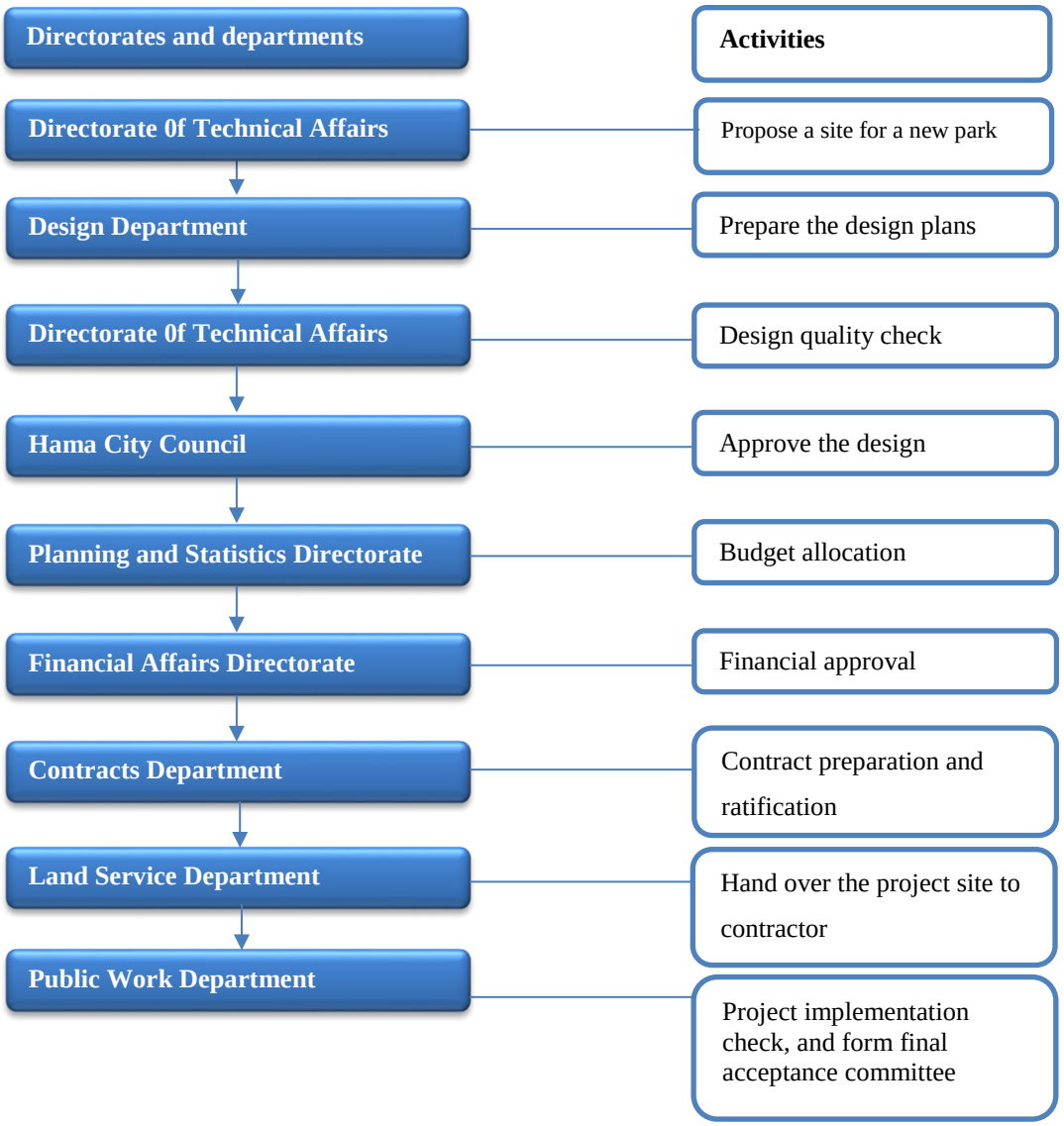


Figure 4.42 The process of new public open spaces development

The maintenance process is initiated by complaints and requests from various quarters. These are mainly complaints from citizens, made directly to the city council (HCC) or by registering the complaint on the governorate website, and requests from the Neighbourhood Committees[25]. The Directorate of Technical Affairs responds to the

[25] Each neighbourhood has a representative body consisting of a Mokhtar and a Neighbourhood Committee, which usually has 7-13 members, selected by the Executive Office of the City. A Mokhtar has a semi-official role within his neighbourhood. He is a neighbourhood representative, as well as a government representative within the neighbourhood
The committee and the Mokhtar hold a meeting every two weeks to discuss their neighbourhood's problems, needs and concerns and to suggest improvements. The notes of their meetings are used to discuss such issues in the monthly meetings held with the relevant directorate in the HCC.

requests and complaints, whereby the director of the DTA takes the decision to send the task to the Design Department or to the Landscape Directorate (LD). The decision is taken according to the nature of the required job and the department best qualified to undertake the work.

In case of sending the work to the DD, then it will follow exactly the same procedures the same procedure as for developing a new space, which was described above. When the work is sent to the LD, the director of the LD sends the required maintenance job to the Maintenance and Services Department (MSD) for implementation. The MSD has workshops and local workers who are responsible for executing the required maintenance work. The director of the LD, during his interview in 2010, mentioned that sometimes there is an individual decision by the governor to execute a specific task in a specific place. In this case, the governor sends a request for the required maintenance job to the Head of HCC, who in turn forwards it to the director of the LD for implementation.

4.5.3. Analysis of the Governance Process of Public Open Spaces in Hama

The previous two sections presented the governance process of the development and management of public open spaces in Hama, through the main actors and rules, which control it. This section provides an analytical summary of the actors and rules of the governance process.

Actors:

Analysis of the types of actors defined in section 4.5.1 shows that the main and dominant actors in the process are the national and local authorities, which mostly initiate the process and lead the design and implementation phases. Within the local government system in Hama, the Hama Governorate makes decisions through its council, and its directorates implement them.

The participation of local residents in the governance process of planning public open spaces is limited. Public participation in the process is through the 30-day period for

the public to make objections to the project. This is one step in the procedures of Law 5/1982, which takes place only between the design stage and decision-making stage. Another aspect of involvement of the local residents is the reaction to the maintenance process, in which they have the right to complain about certain problems in their spaces. Therefore, it is clear that the local authority has the leading role in the governance process of public spaces, with a limited role for local residents.

Rules:

The analysis of the rules of the governance process reveals important issues: centralization in decision-making, poor capacity (finance and qualified personnel), and limited public participation. Decision-making is highly centralised, particularly in the master plan process. According to the procedures, financial limitations appear to be a dominant factor affecting the planning process of public open spaces. As stated by most interviewees, especially the managers of DUO and LD, the annual budget was insufficient for the required work. Therefore, some of the projects were delayed due to budget restrictions. This delay, in turn, caused disappointment to the local residents.

Examining the governance process of public open spaces revealed a conflict between different directorates in HCC and the executing agencies involved in the process. The surveillance team in the PWD revealed that there were three issues of concern during its work. Firstly, the design of the new spaces was not comprehensive and lacked an inclusive analysis of the context of the proposed site, which influenced the implementation process and made it complicated. According to some of the interviewees in the PWD, the new designs and the maintenance plans were not at the required level and were insufficient to fulfil users' needs. Secondly, they stated that some of the executing agencies and contractors were unqualified; therefore, the execution of the project did not match the design. Finally, the contracts prepared by the CD were incomplete, which prevented the implementation process from going smoothly. Some designers from the Design Department claimed that there was a lack of supervision by the executing agencies and contractors. Therefore, the contractors were modifying the design plans and making changes to the building materials according to their convenience and budget. According to the DD, the supervision team

were responsible for monitoring the implementation process in order to deliver the planned product.

From the details mentioned above, it appears that the problems in the delivery of the development process of public open spaces arise from a number of factors involved in the process. However, the most important issue for the purpose of this research is that the final delivery of the development of public open spaces in Hama did not appear to be at a satisfactory level to the professionals and was not perceived to satisfy users' needs. Lack of financial resources and qualified teams continues to present a problem in urban development. This was raised by the interviewees and was confirmed through the reviewed literature. The conflict between different actors involved in the maintenance process was one of the reasons why the maintenance of public open spaces was unable to meet users' needs and expectations.

4.6. Conclusion

The main aim of this chapter was to examine the urban development and the evolution of public open spaces in Hama, in order to understand the changes in their nature and function. A further aim was to provide an overview of the governance process of the provision and management of public open spaces in Hama, in order to understand the various actors and rules, which control this process.

The overview of the urban development has covered some of the historical periods that have contributed to the formation of the urban character of the old settlement of Hama and its public spaces. The analysis covered four periods: the period up to the end of the Roman rule; the period of Islamic rule, the French mandate up to independence; and finally the post-independence period to the present day. The Roman period was remarkable in the history of Hama mainly for the building of the Norias, waterwheels, along the banks of the Orontes River, which have provided inspiration to and enhanced public life in the city right up to the present day. In addition to that, the foundation of the networks of stone roads and bridges helped in the development and expansion of the city in later ages.

During the Islamic era, the city expanded on both banks of the river and the urban form created during this period became the dominant morphology up to the 19th century. Public spaces evolved along with the city's development, and were composed of the hierarchical informal street networks, sahat, souks, and khans, and the green open spaces located along the Orontes River. Public life and social activities were associated mainly with the river and the Norias, within the green public open spaces located on the river banks. In addition to that, there was the public social life taking place in the areas near the masjid, souk, khan, and qahwe.

The European influence started to affect the urban form and public spaces at the beginning of the French mandate, in which new public spaces were introduced to the urban fabric of the city, such as squares, wide streets, boulevards and public gardens. A new civic centre was proposed, which would later form the new city centre of Hama Despite the newly developed public spaces, people continued to use public open spaces near the mosques, souks, khans and the green spaces and orchard field along the banks of the Orontes River. Post-independence, the period up until the end of the twentieth century witnessed wider contemporary influences. The city developed and expanded rapidly: new neighbourhoods were established, parks and gardens were planned, and green open spaces located on banks of the river were developed as public spaces.

At this time, public life and social activities were taking place mainly in the green public open spaces located near the river and the Norias, particularly in the parks and planned public spaces located on the river banks, as well as the parks and unplanned open spaces located at a distance from the Orontes River. Later, at the beginning of the twenty-first century, the use of the parks and planned public open spaces located on the river banks declined gradually, in favour of the increased use of the private open cafés located along the Orontes River banks. The deterioration of the use of the public open spaces in Hama was due to different reasons, which are discussed in Chapters 5 and 6.

The review of the governance process of public open spaces revealed the main actors involved in this process, the public authorities, and their responsibilities in developing and managing public open spaces in Hama. In addition, it investigated the rules of the

governance process of public open spaces, in the development and maintenance process, to understand how the actors interacted within these rules. The analysis of the rules disclosed three important factors, which are centralization in decision-making, poor capacity (in terms of finance and qualified teams), and limited public participation. The main point which arises from this review is that the final delivery of the public open spaces, both in terms of the design, construction and maintenance, was not at the required standard expected by the professionals due to the conflict between the actors during the process of delivery and the inability to satisfy users' needs.

Looking at the urban development of Hama, reveals the significant influence of the Orontes River on the urban form of the city, and its public open spaces. The location of the river, passing through the city, has most of the public open spaces concentrated around its banks. Therefore, some of the neighbourhoods at a distance from the river lack enough green public open spaces.

Understanding the evolution of the public open spaces provides a good basis for understanding how people perceive these spaces, and how they use them (Chapter 6). In addition, it enhances the understanding of the spatial structure of the current public open spaces (Chapter 5). Furthermore, reviewing the process of delivery of public open spaces helps in understanding the professionals' perceptions regarding public spaces in Hama (Chapter 6)

Chapter 5 - The Spatial Study

This chapter presents the findings of the spatial study. The purpose is to explore the physical and spatial structure of Hama and its public open spaces, particularly parks. As explained in Chapter 3, in section 3.4.1, land use and urban form surveys were conducted to analyse how the urban land is used and examine the physical context of the case study parks. Space syntax analyses were also applied in order to explore the spatial structure of the city, its integration values and its impact on people's behaviour, and pedestrian movements. The spatial analysis was undertaken for the city and local contexts because an understanding of the structure and context of Hama is important in understanding the context of the selected parks. This chapter presents and discusses first the findings from the city level analysis, and then the findings from the local level.

5.1. City Level Study

The city level study comprises the findings of the land use survey of Hama and the space syntax analysis applied at the city level. The land use analysis first discusses how the topography of the land has affected the land use pattern in the city and how it has developed over time, and then examines the urban land uses as shown on the land use map (Figure 5.2). The space syntax analysis illustrates first the urban structure of Hama and its main street networks and then it presents and discusses the findings of the global integration map of the city.

5.1.1. Land use and the city

The land use pattern in Hama was revealed by conducting a land use survey at the city scale. As explained in section 3.4.1, the study was undertaken using the land use documents obtained from the Department of Urban Organization in Hama City Council during the field trip in 2010. A map of the land uses in the city with the location of the case studies was then prepared by the researcher.

Hama is the fifth largest city in Syria, with a total area of 6000 hectares and stands in west-central Syria surrounded by the Damascus to Aleppo major national highway, which connects the city with Aleppo to the north and Homs then Damascus to the south. As described in section 4.3 in Chapter 4 the population in 2010 was estimated as over half a million (Alkhateb et al., 2010).

The topography and natural elements in Hama have an obvious influence on land use distribution. The topography of the city, lying in a low valley surrounded by hills (see Figure 4.3), and the presence of the Orontes River, had a great impact on the urban development of the city. As described in section 4.4, in the Roman era, the built up area was only on the south-western bank of the river, then later, in the Islamic era, the urban structure of the city expanded dramatically, spreading to both banks of the Orontes River. Since the middle of the seventeenth century Hama has been divided into two main districts, Al Souk and Al Hadir, each of which has several neighbourhoods, and its commercial centre was concentrated in the two districts. All city streets on the east and west banks of the Orontes River met in these commercial centres (see Figure 4.11 in section 4.4). Up until the end of the nineteenth century the urban form of Hama remained the same; it was split into two districts by the river, with some developments in the neighbourhoods in each district.

The first master plan for Hama, prepared in 1944, influenced the land use pattern in the city, principally through proposing a new civic centre, located on the south bank of the river in the Al Souk District. The new centre consisted of a square formed by the meeting of new, wide, straight streets connecting the city from north to south and from east to west. Consequently, the administrative, governmental, cultural, educational and commercial buildings were clustered around the new main square, Sahat Al Assi, and along the main new streets. (Figures 4.23 and 4.26) The suggested expansion zones were in the north eastern and the south western parts of the city and were mainly residential neighbourhoods. New public open spaces were introduced within the master plan, and comprised mainly a central garden, Um Al Hassan, and green public open spaces on the north eastern, south eastern, and north eastern banks of the Orontes River. The second master plan, prepared in 1960, determined the land uses in the city and expanded the main civic centre along the main axis road in the city,

with an emphasis on the extension areas (Figure 4.31). The third master plan, ratified in 1996, did not have large impact on the existing land use in the city, as it was mainly concentrated on the main road network and the expansion areas, which are residential neighbourhoods built to accommodate the rapid increase in the population.

According to the Department of Urban Organization in Hama City Council the dominant land uses in the city are the residential and services uses, including commercial, institutional and industrial uses, which cover 63.4%, then the main roads, covering 21 % of the land, after which come the green public areas and squares, covering 14.9% of the land (Figure 5.1). The city authority describe the city centre as high density and the surrounding new neighbourhoods as moderate density.

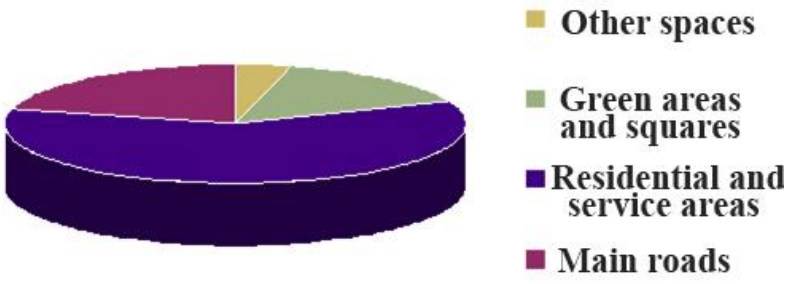


Figure 5.1 Land use chart (Source: Hama City Council, 2010)

The previous figures for land uses are provided by the city council, however the prepared land use map (Figure 5.2) based on the existing land uses in the city shows that the land uses are approximately 55% residential, 12% green open space, 12% open space, 10% commercial (retail and offices), 8% institutional, and 3% industrial.

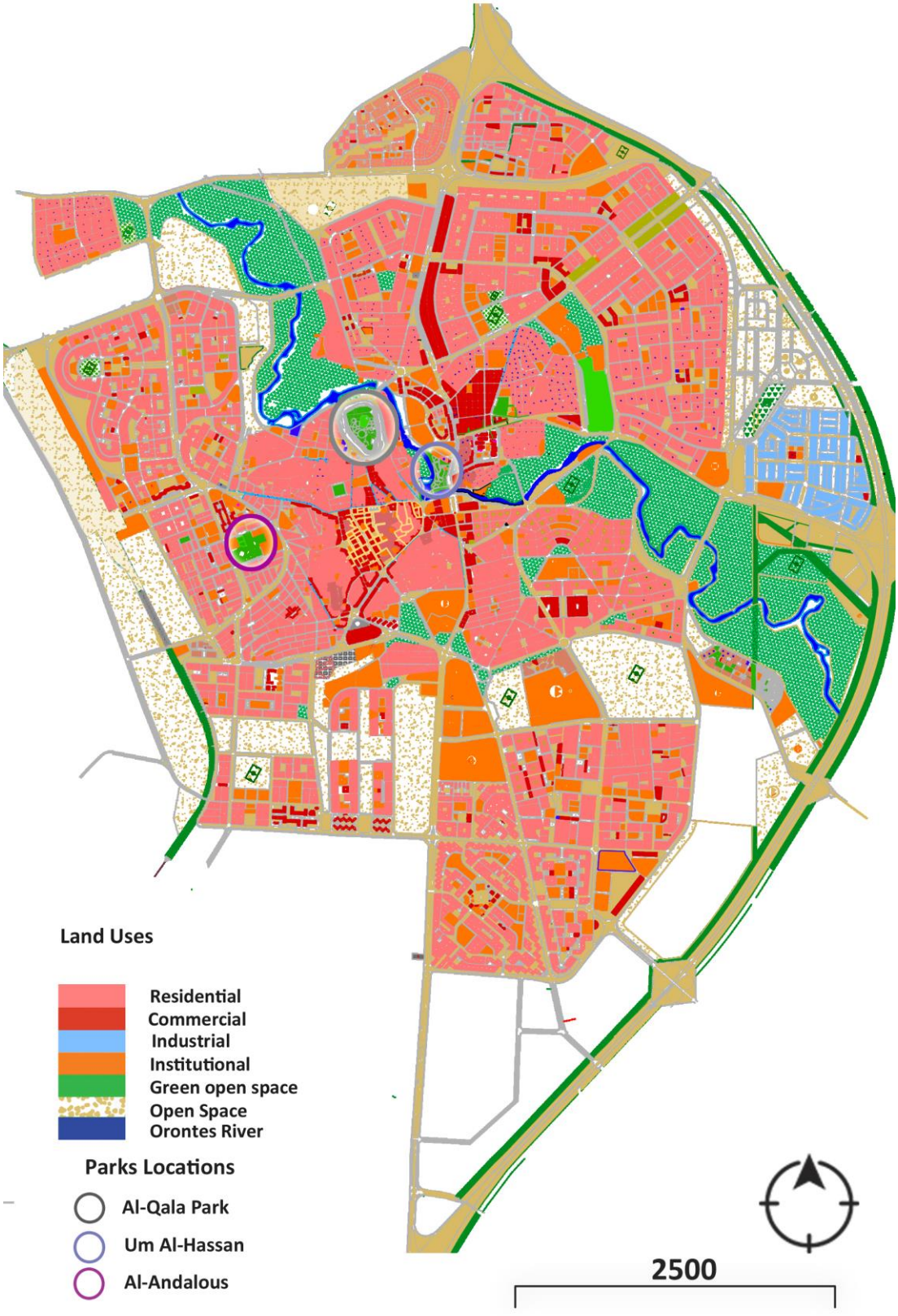


Figure 5.2 Hama City Land Use Map (Source: the researcher)

The location of the Orontes River, passing through the city, has significant influence on the distribution of the green spaces in the city, in that most of the public open spaces are concentrated around its banks. Therefore, some of the neighbourhoods at a distance from the river lack green public open spaces. There are only four main parks in the city, two of them in the city centre and the other two on the outskirts (see section 4.4.4), while the other parks and green public open spaces are spread along the banks of the Orontes River. The remaining spaces are local "pocket-sized" parks distributed within the residential neighbourhoods.

There are two main residential districts, Al Souk and Al Hadir Districts, each of which comprises several neighbourhoods. The commercial land use is mainly concentrated in the city centre area and spread along main axis road in the city, running from north to south. Administrative and institutional land uses are also focused in the city centre and along the main axis road in the city. The industrial area is located in the eastern part of the city, isolated from other functions in the city (Figure 5.2).

5.1.2. Space Syntax and the city

Space syntax analysis was undertaken at the city level to understand the spatial structure of Hama and its integration values (accessibility values). As explained in the Methodology Chapter in section 3.4.1 Depthmap software was used for the preparation and analysis of axial maps.

The main road network in Hama was designed in the master plan (1985-2010) in a ring-pattern, to be more compatible with the topography of the city (Alkhateb et al., 2010). The street structure consists of the main axis roads that link Hama with the other cities. The main road is the north-south axis, which passes through the city centre, connecting the two main districts in the city. Parallel to this axis, to the east, is located the major national highway connecting Hama with Aleppo and Homs, while the third north-south axis is located at the western border of the city. Perpendicular to these three axes, three further axes run from east to west, two of which form the northern

and southern borders of the city, while the third runs through the city centre, forming the main square, Sahat Al Assi. In the north eastern side of the city, a radial road connect the city with the suburbs. In addition, there is a network of sub-streets and six usable bridges in different locations in the city (Figure 5.3).

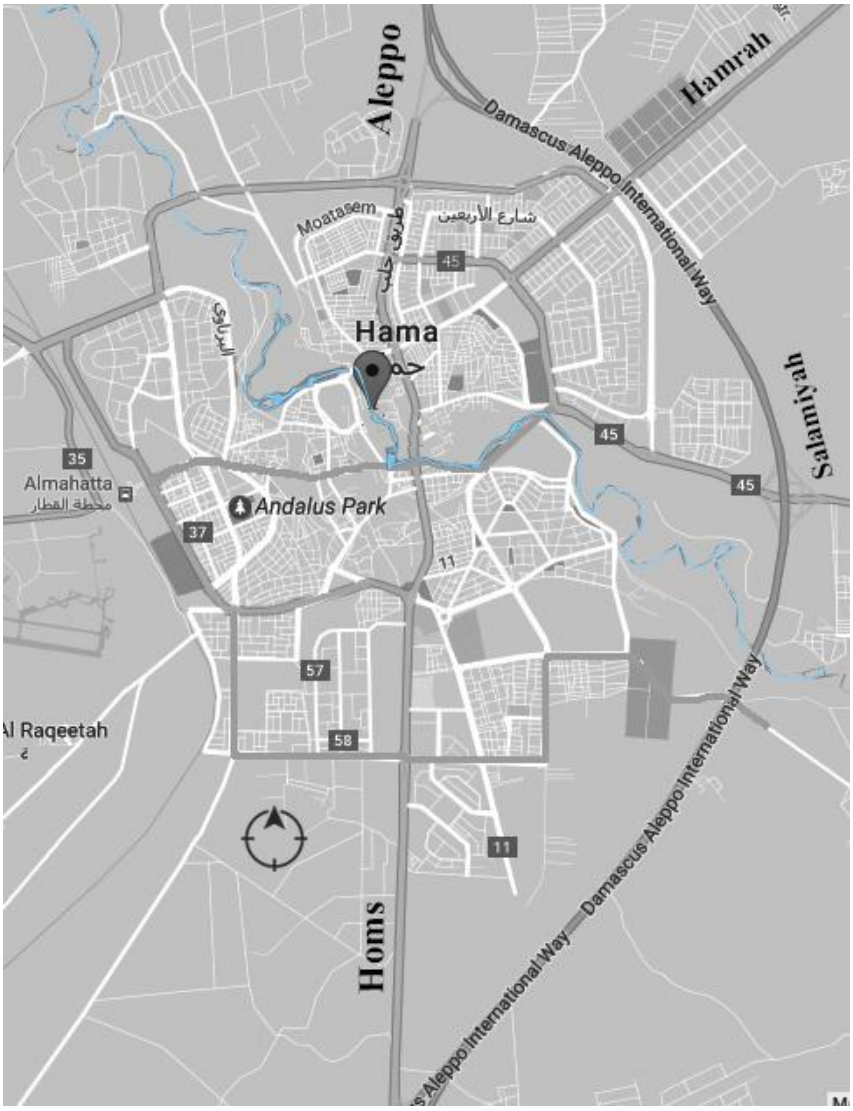


Figure 5.3 Hama road network (Source: adapted by the researcher form Google Map, accessed 2016)

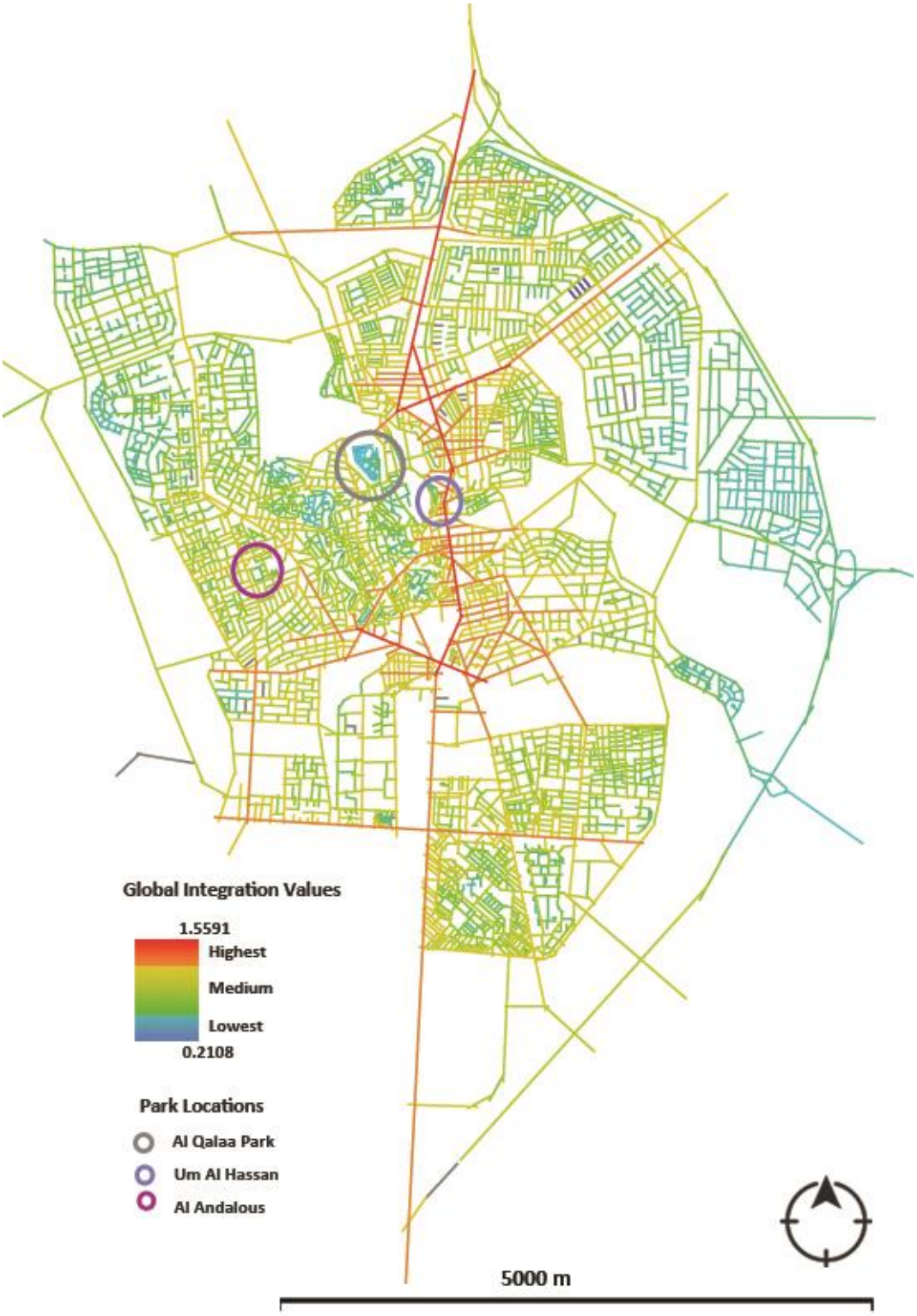


Figure 5.4 Hama city- space syntax global integration map and the case study park locations

The presence of the Orontes River has influenced the accessibility in the city and resulted in a broken line structure in the heart of Hama, since every road does not cross over the river. As described in section 4.4.4 in Chapter 4, only a few bridges connect the two main districts of the city.

The axial map analysis showed that Hama has lower syntactic values than cities in other parts of the world, but slightly higher values than those of other Arab cities, as shown in Table 5.1.

Table 5.1 Comparison of syntactic values of Hama to that of the rest of the world (Adapted by the researcher from Raman, 2003)

	Number of cases	Connectivity	Local (R3)	Global (Rn)[26]	Intelligibility Rn/Conn	Synergy Rn/R3
USA	12	5.835	2.956	1.610	0.224	0.559
Europe	15	4.609	2.254	0.918	0.137	0.266
UK	13	3.713	2.148	0.720	0.124	0.232
Arab	18	2.975	1.619	0.650	0.231	0.160
Hama	1	3.495	1.804	0.954	0.125	0.437

Like most cities across the world, the pattern of Hama has a central integration core[27] and axis, with high integration values, connecting the centre to the peripheries. The value of global integration in Hama (0.954) closely matches the values of the European examples, and is higher than values in UK and Arab cities (Table 5.1). In previous studies, Hillier claims that when British cities grow bigger they seem to disintegrate, in terms of global integration. (Hillier, 1996).

In comparing the connectivity of Hama (3.495) to the connectivity of cities around the world, it has been found that it closely matches those of UK cities, and is slightly higher than those of other Arab cities (Table 5.1). The lower connectivity figure in Hama is ascribed to the non-orthogonal grid (mainly in the old city and city centre area), which naturally growing cities like Hama have, dissimilar to the regular grid of

[26] In the axial map analysis, the global integration radius n (Rn) is calculated by considering the depth from each line up to the largest possible depth. While the local integration or radius 3 integration (R3) is calculated by considering three steps away from each line. (Hillier, 1996)

[27] Integration core refers to the area in which the most integrated lines in the axial map are concentrated.

American and some European cities. Raman (2003) claims that in general Iranian and Arab cities have lower connectivity features, which is explained by the broken short line structure, she explains that longer lines in the axial lines, mean more connections. Therefore, in Hama, as one of the Arabian cities, the lower connectivity value means increased mean depth, and lower integration values.

From the global integration map of Hama (Rn) (Figure 5.4), the most integrated core, predictably, is the north-south axis (Saaed Al Aas and Al Alameen Streets) which passes through the city centre, along with the nearby roads and streets that feed into it. Due to the nature of the city structure, this integrated core is separated into two parts, the first one is to the north of the Orontes River (the centre of Al Hadir District) and the second part is to the south of the river (the centre of Al Souk District), and they are connected by the highly integrated bridge, Jisr Al Abessy. The industrial area located in the eastern part of the city has the lowest integration values.

The global integration map shows that Um Al Hassan Park is situated on the most integrated road in the city, Saaed Al Aas Street, which borders the park to the east, and on a street with a medium level of integration, Al Dabagh Street, which borders the park to the south, whereas Al Andalous Park is located on streets with a medium level of integration out of the city centre. Although located in the heart of the city, Al Qalaa Park is surrounded by streets with low levels of integration (Figure 5.5).

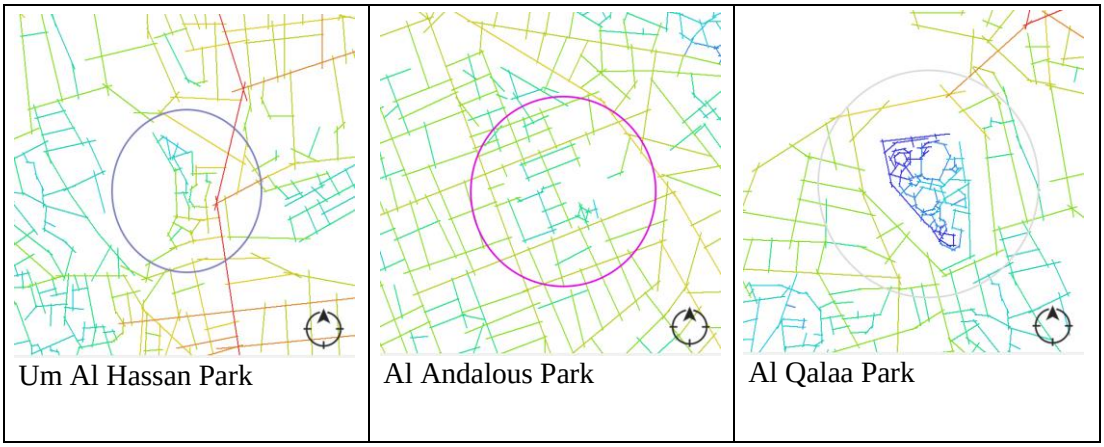


Figure 5.5 The global integration maps around the three parks.

5.2. Local level study

The local level study includes the findings from the land use and urban form surveys, and space syntax analysis applied at the level of each park. The first section, on land use and urban form examines the land use of the areas surrounding the case studies and then explains the urban form of the areas near to the parks. The next section, space syntax analysis first explores the local integration values in Hama, with the focus on the areas surrounding the case study parks and then discusses the findings of the axial map analysis applied inside the three parks.

5.2.1. Local Land Use and Urban Form

The land use patterns and the urban form of the areas surrounding, Al Qalaa, Um Al Hassan and Al Andalous Parks, were explored using data collected during the site visits to the three parks in 2010 and 2011, during which the required notes and photographs for these analyses were taken. This section starts with a review of the background of each case study park then analyses the land use and urban form of the surrounding areas.

5.2.1.a. Um Al Hassan Park

Background

The park is located in a strategic location in Hama city centre, on the north-eastern bank of the Orontes River in Al Hadir District. It is bounded by the Orontes River to the south and west, and is located at one of the busiest vehicular and pedestrian intersections in the city centre, where Jisr Al Abessy and Saaed Al Aas Street converge. It is surrounded by several important and historical buildings, such as Al Aranout Palace (the previous government house built in the 1650s) and the Baath Party branch building (previously the Grand Hotel of Hama, built in 1935), along with the main square in the city, Sahat Al Assi. The park is one of the oldest parks in the city, established by the municipality of Hama at the end of 1959. It has three entrances: the main entrance is on the southern edge of the park and is connected with Al Dabagh Street in Al Souk District by the main pedestrian Roman bridge, Jisr Al Saraya. (See

Figure 4.22). The other two entrances are located on Saaed Al Aas Street, as shown in Figure 5.6. The presence of Al Jisryah Noria at the park main entrance and Al Mamoryah Noria on the west bank of the Orontes River give the park a special identity. The use of north-eastern corner of the park was changed by Hama municipality to a playground, which is run by private investor, and for an administrative building, the Tourism Directorate in Hama. The original size of the park was 3.9 hectares (section 4.4.4) while after the change of use of part of the park the size is 3.3 hectares.

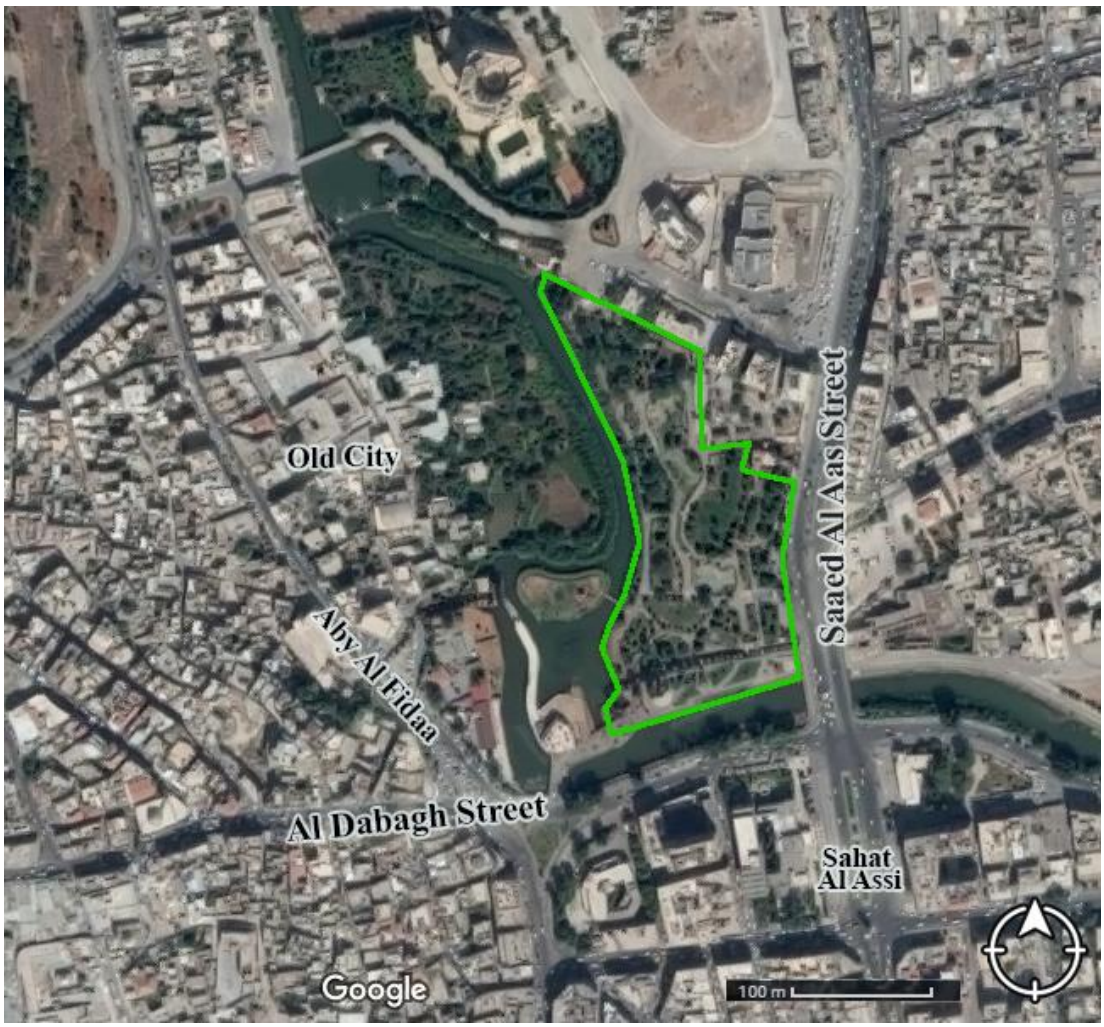


Figure 5.6 Um Al Hassan Park location (Source: adapted by the researcher from Google Map, accessed 2016)

Land Use

Um Al Hassan Park has a variety of land use patterns surrounding it. The adjacent land uses are commercial (retail and office) (55%), open space (25%), institutional (15%), and residential (5%). (See Figure 5.7).

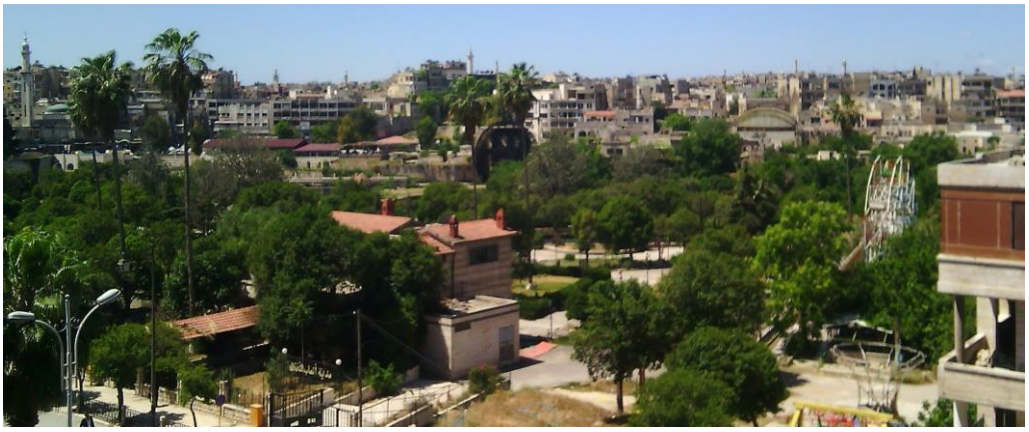
Figure 5.7 Land use map around Um Al Hassan Park
(Source: the researcher)

It is surrounded by shopping streets, mainly along Al Dabagh, Aby Al Fidaa, and Saaed Al Aas Streets. There are two hotels, one to the north of the park, Apamea Hotel (the main hotel in the city), and another one is situated to the south of the park. In addition, it has administrative uses such as the Government House and Al Baath Party branch (to the south), and the police headquarters buildings (to the north); office buildings (mainly on the eastern side); and a mosque located to the south-west side of the park.

Several cafés and restaurants are distributed along Aby Al Fidaa Street to the west of the park, with a central café, Al Gazala Café, situated on the Jisr Al Sarayh near the southern entrance of the park. It is an important café in the area because it is located on the site of the ancient water mill, Tahounh Al Gazalah. At the basement level of the café building the Fine Artists Association in Hama is located. The residential areas are from the old city situated on the western side of the park and some modern residential buildings border the park to the north (See Figure 5.7). Overall the park is surrounded by a mix of uses and the dominant land use is commercial (retail and office). (Figure 5.8)

(a) Al Dabagh Street from the south western corner of Um Al Hassan Park

(b) Cafés and restaurants entrance on Aby Al Fidaa Street



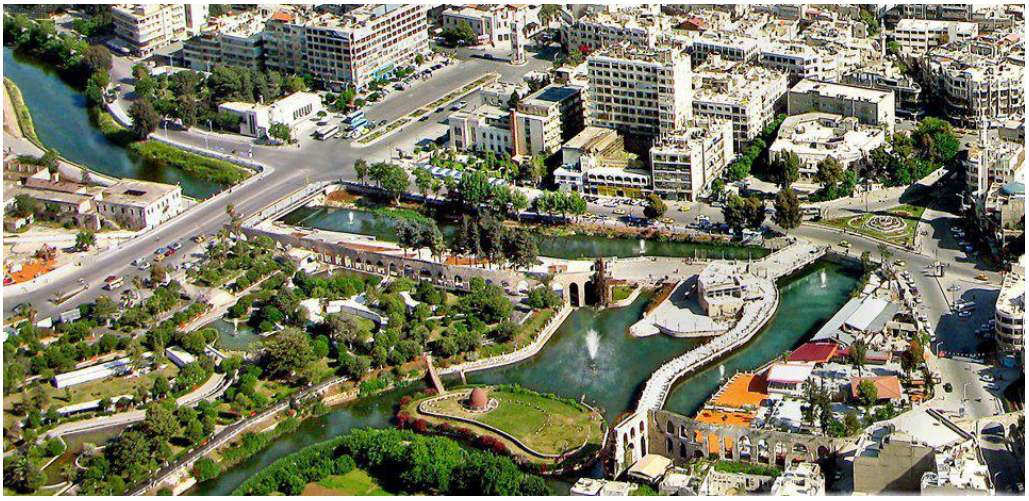
(c) The Tourism Directorate and the playground entrances at the eastern side of the park

Figure 5.8 Uses around Um Al Hassan Park

Urban Form

The urban form around Um Al Hassan Park is a mix of planned and organic (old city) urban tissues. The main typology around the park is perimeter blocks (mainly to the northern, southern and eastern sides) with an average block size of (75m x 50m) and (125m x 75m). The western side of the park is dominated primarily by the old urban fabric of the city with irregular pattern of streets. (Figure 5.6 and 5.7)

Um al Hassan Park is open to the Orontes River from two sides, the south and west, and enclosed by built-up areas to the north and east. On the western side, there is an open space (private orchard) on the opposite bank of the river, while on the southern side, the river is bounded by Al Dabagh Street and Sahat Al Assi. The width of the surrounding streets range between 30-16 meters (Saaed Al Aas Street 30m, Al Dabagh Street 20m, Jisr Al Abeesy 18m and Aby Al Fidaa 16m). The park is situated in a high-density area in the centre of Hama and the heights of the surrounding built form ranges between 2-10 storeys. Buildings of the old city (traditional style) have 2 storeys while the two hotels (contemporary architectural style) have 10 storeys. The other surrounding buildings range between 3-7 storeys some of which have traditional style while others have a more contemporary architectural style. The streets surrounding the park have active frontages at the ground level, mainly shops and cafés (see Figure 5.9).



(a) Aerial view of Um Al Hassan Park with its surroundings towards the south.

(b) Um Al Hassan Park looking north.

(c) South eastern corner of Um Al Hassan Park, showing Sahat Al Assi to the left

(d) Um Al Hassan Park with its surroundings towards the east.

(e) The square in front of Um Al Hassan Park looking west

(f) North western corner of Um Al Hassan Park, showing the Apamea Hotel to the left.

Figure 5.9 Urban form around Um Al Hassan Park

5.2.1.b. Al Qalaa Park

Background

The park is located at the site of the ancient Hama castle, on the south-western bank of the Orontes River in Al Souk district, and was designated as a park in 1970. The location of the park, standing alone on a hill provides a panoramic view of the Orontes River, the Norias and the whole city. The park is mainly bounded by the remaining part of the old city and the Orontes River. The main historical buildings near the park are the two Roman buildings, the Grand Mosque 'Al Jamea Al Kabir' and the Greek Orthodox Church, the 'Entrance of The Otokus Cathedral'. The park is surrounded by Qalaa Street, which runs around its perimeter, and is connected with Al Hadir District by three bridges two of which are Roman bridges (Jisr Al Hawa and Jisr Bet Al Shekh) and the third one is Jisr Al Raeass (one of main bridges of the city established in 1984). The park has only one entrance to the south, and has two cafés inside it, one is located at the north side of the entrance space, while another one is located to the north of the playground in the middle of the park. The size of the park is 10 hectares. (Figure 5.10)

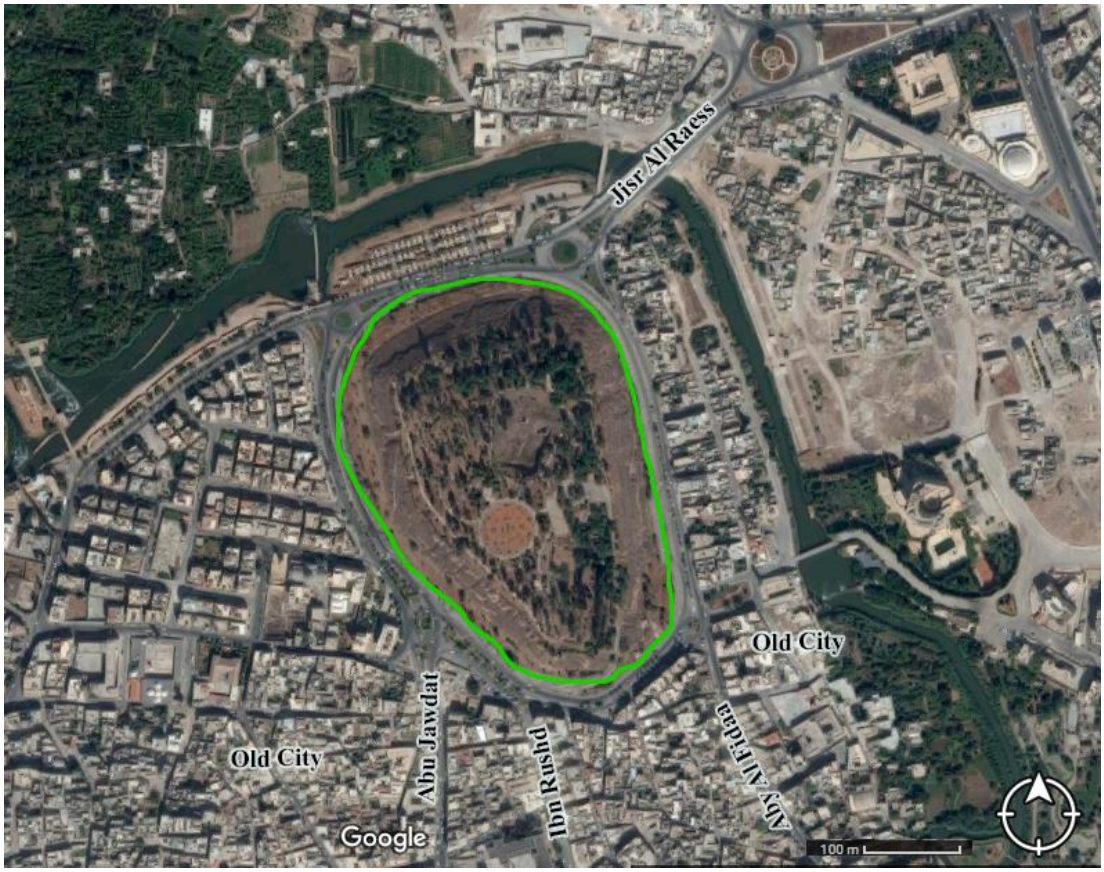


Figure 5.10 Al Qalaa Park location (Source: adapted by the researcher from Google Map, accessed 2016)

Land Use

Al Qalaa Park has almost the same surrounding land use patterns as Um Al Hassan Park, because they are both situated in the city centre (with about 600m distance between them). However, the presence of residential areas (mainly the old city) is much greater than around Um Al Hassan Park, while there are fewer commercial streets. Some of the residential areas are modern ones and mainly located on the western side of the park to the north of the old city (see section 4.4.3). The immediate land uses surrounding the park are residential (35%) commercial (mainly retail) (25%), open space (25%), and institutional (15%). (See Figure 5.11).

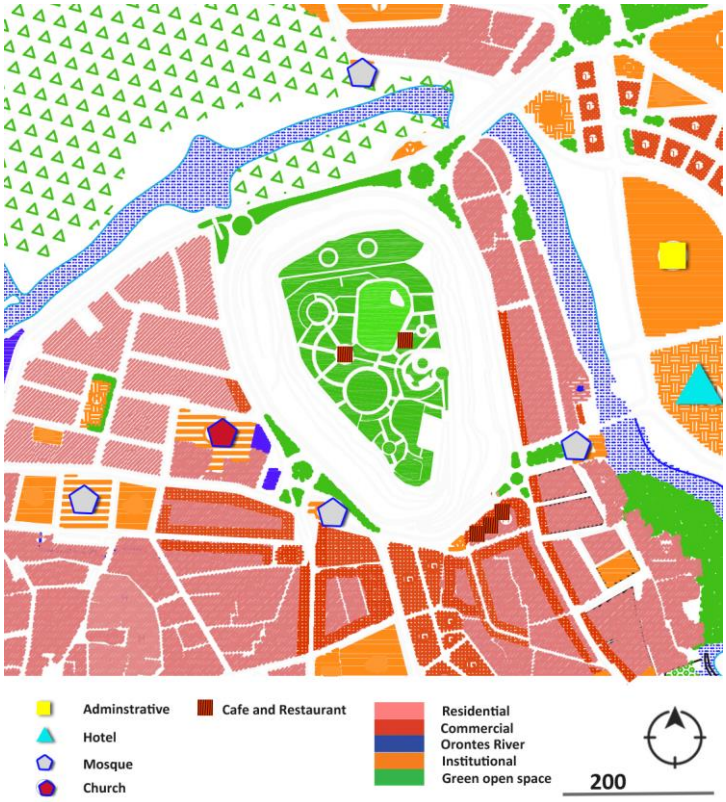


Figure 5.11 Land use map around Al Qalaa Park (Source: the researcher)

The shopping streets are located near to the entrance of the park. There are three parallel streets (Aby Al Fidaa, Ebn Rushd, and Abu Jawdat) perpendicular to Al Dabagh Street. The ground floor of the residential buildings to the eastern and southern sides of the park are mainly cafés and shops. Apamea Hotel and Al Nouri Mosque (1162) are located to the east side of the park, Aby Al Fidaa Mosque (1326) is located to the north side of the park, while Al Hasanin Mosque is located to the south side near the park entrance. The Orontes River and the Norias along with the private orchard are the dominant land use on the north side of the park. The park is surrounded by mixed uses and the dominant land uses are residential and commercial (mainly retail). (See Figure 5.11)

Urban Form

The urban from of the surroundings of Al Qalaa Park is mainly organic (the urban fabric of the old city). The typology of the north-western and south-eastern sides of

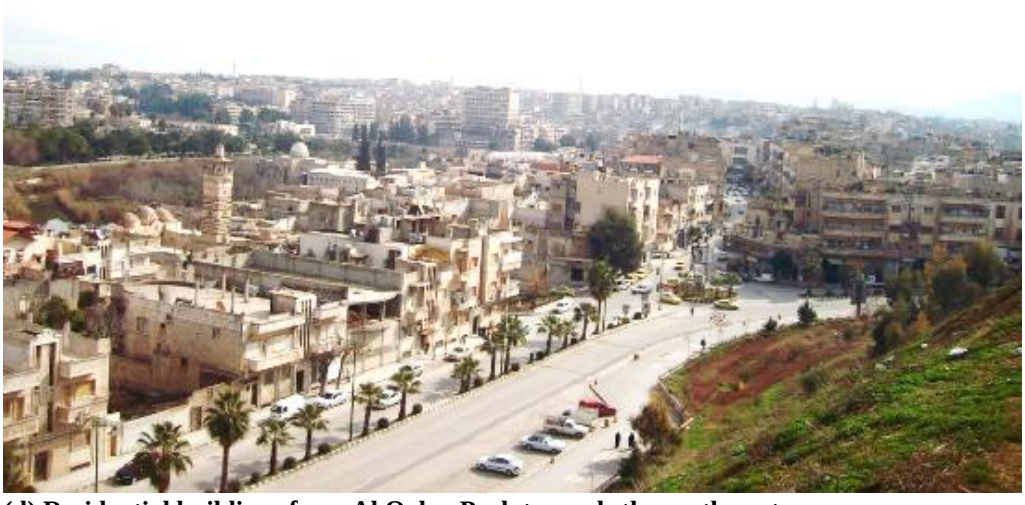
the park is terrace houses with an average block size of (100m x 50m). In the eastern side of the park the typology is perimeter blocks of irregular shape with an average block size of (125m x 50m). (Figure 5.10 and 5.11).

Being on the site of the castle, the park has open surroundings, its position on a hill looking over the city makes it as a landmark (Lynch, 1960). It is surrounded by high to medium density mixed use areas and the height of the nearby buildings range between 2-4 storeys. As with Um Al Hassan Park, the buildings of the old city (traditional architectural style) have 2 storeys while the modern residential areas are 4 storeys. The width of the surrounding streets range between 30-15 meters (Jisr Al Raeass 30m, Qalaa Street 25m, Aby Al Fidaa Street 16m, Ebn Rushd Street 15m, and Abu Jawdat 15m). The streets to the south-eastern and south-western edges of the park have active frontages at the ground level, mainly shops and cafés (see Figure 5.12).

(a) Al Qalaa Park towards Abu Jawdat Street to the south

(b) Al Qalaa Park towards Ebn Rushd Street to the south.

(c) Al Qalaa Park towards the south-east.



(d) Residential buildings from Al Qalaa Park towards the south-east.

(e) Residential and retail buildings from Al Qalaa Park towards the east.

(f) Al Qalaa Park towards the orchards and the recent residential buildings to the north-west

(g) Al Qalaa Park entrance from the corner of Ebn Rushd Street.

(h) Al Qalaa Park from Abu Jawdat Street, showing the Al Hasanin Mosque

(i) Abu Jawdat Street towards Al Qalaa Park

(j) Ebn Rushed Street towards Al Qalaa Park

Figure 5.12 Urban form around Al Qalaa Park

5.2.1.c. Al Andalous Park

Background

The park is located in a modern residential area, Al Andalous neighbourhood, in Al Souk District out of the city centre and away from the Orontes River. It was designed and established in the mid-1980s. The park has three entrances on the adjacent northern, southern and western streets. The western street, Al Andalous Street, is a tree-lined boulevard connecting the park with the main road network in the city. A large area of the allocated space of the park has been taken for various uses, such as a sports club, café and a mosque, as shown in Figure 5.13. The size of the park was 5.5 hectares, while after the change of the use of some parts of the park the size is now 3.75 hectares.

Figure 5.13 Al Andalous Park location (Source: adapted by the researcher from Google Map, accessed 2016)

Land Use

Al Andalous Park has residential as the predominant surrounding land use (65% of the land use). However, there are other land uses, for example, administrative buildings (20%) and local shops and commercial activities (5%) on some of the ground floors. (Figure 5.15) There is a primary school located at the west corner of the park, and a secondary school at the north corner. In addition, a mosque occupies the south eastern corner of the park, a sports club the north-eastern corner, while a community hall with a café is located on the north-western corner of the park. Adjacent to the mosques is a nursing home. The commercial uses are concentrated along Al Andalous Street to the north of the park. (See Figure 5.14).

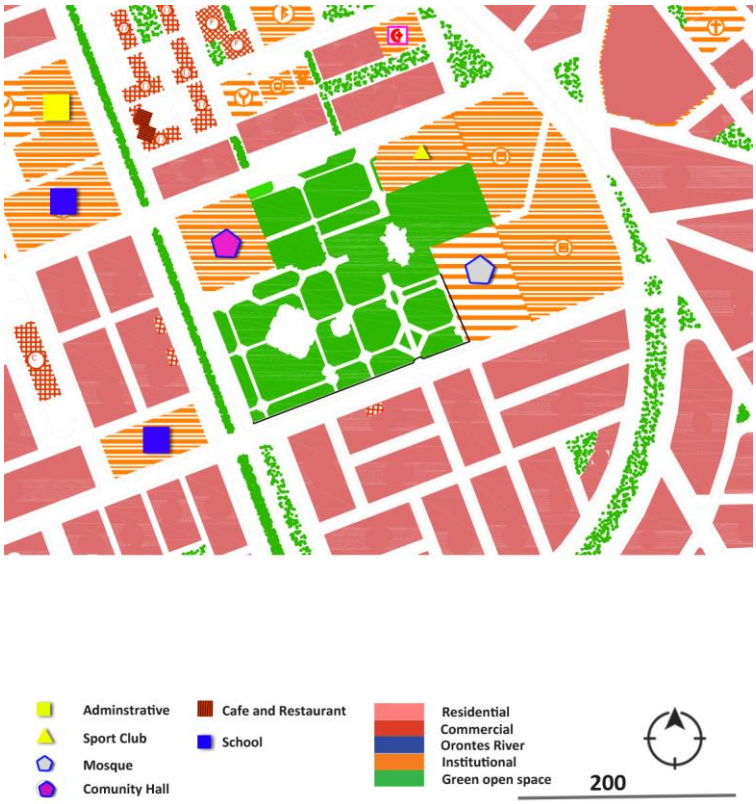


Figure 5.14 Land use map around Al Andalous Park (Source: the researcher)

(a) Local shop opposite to the southern entrance of the park

(b) Local shops to the north of the park

Figure 5.15 Local shops on some of the ground floors.

Urban Form

The urban from around Al Andalous Park is planned with a regular pattern of streets, including wide boulevards and streets with tree lines. (Figure 5.16). The main typology around the park is terraced houses (mainly to the southern and western sides) with an average block size of (75m x 25m). The typology of the eastern side is perimeter blocks with an average block size of (125m x 50m). (Figure 5.13 and 5.14)

The park is enclosed on all four sides, by mainly residential uses. It is surrounded by medium density land use, and the heights of the surrounding buildings range between 2-4 storeys. These buildings are mainly modern villas and apartment buildings. The width of the surrounding streets range between 30-20 meters (Al Andalous Street 30m, Al Bayad Street 30m, and both north and south streets are 20m. The frontages at ground level are not active, with only few open access frontages available, namely the shops and cafés located to the north and west sides of the park. (Figure 5.16).

(a) Al Andalous Street with its surroundings from the north western corner of the park.

(b) From the southern entrance of Al Andalous Park towards the west, showing the primary school to the right

(c) From the primary school towards the street adjacent to south border of the park

(d) The south western corner of the park

(e) Al Andalous Street from the south western corner of the park towards the north

(f) From inside the park towards the primary school to the west, showing the residential building to the left.

(g) Al Bayad Street from the corner of the nursing home building towards the south

(h) A residential street, from Al Bayad Street towards the east

Figure 5.16 Urban form around Al Andalous Park

5.2.2. Space Syntax Evaluation

In this section, the axial map analysis was undertaken to understand the local integration values (connectivity) around the selected parks, and to examine the spatial characteristics inside the case study parks. As mentioned in section 5.1.2, Depthmap software was used for the preparation and analysis of axial maps.

5.2.2.a. Local integration values and the three parks' locations

From the local integration map (Figure 5.17), it is interesting to note that the most integrated roads are mostly the same roads, which are highly integrated globally. They are the roads constituting the south-north axis, along with some of the roads connecting this integrated core to the edges. In addition, the main roads in Al Andalous neighbourhood, with its orthogonal layout, are classified as among the best locally integrated streets in the city. Thus, Al Andalous Park, being located in Al Andalous neighbourhood, is surrounded by highly integrated roads. Similarly to the findings of the global integration map, Um Al Hassan Park has a highly integrated street to the east and a street with a medium level of integration to the southern edge, while Al Qalaa Park is bounded only by streets with low levels of integration (see Figure 5.18).

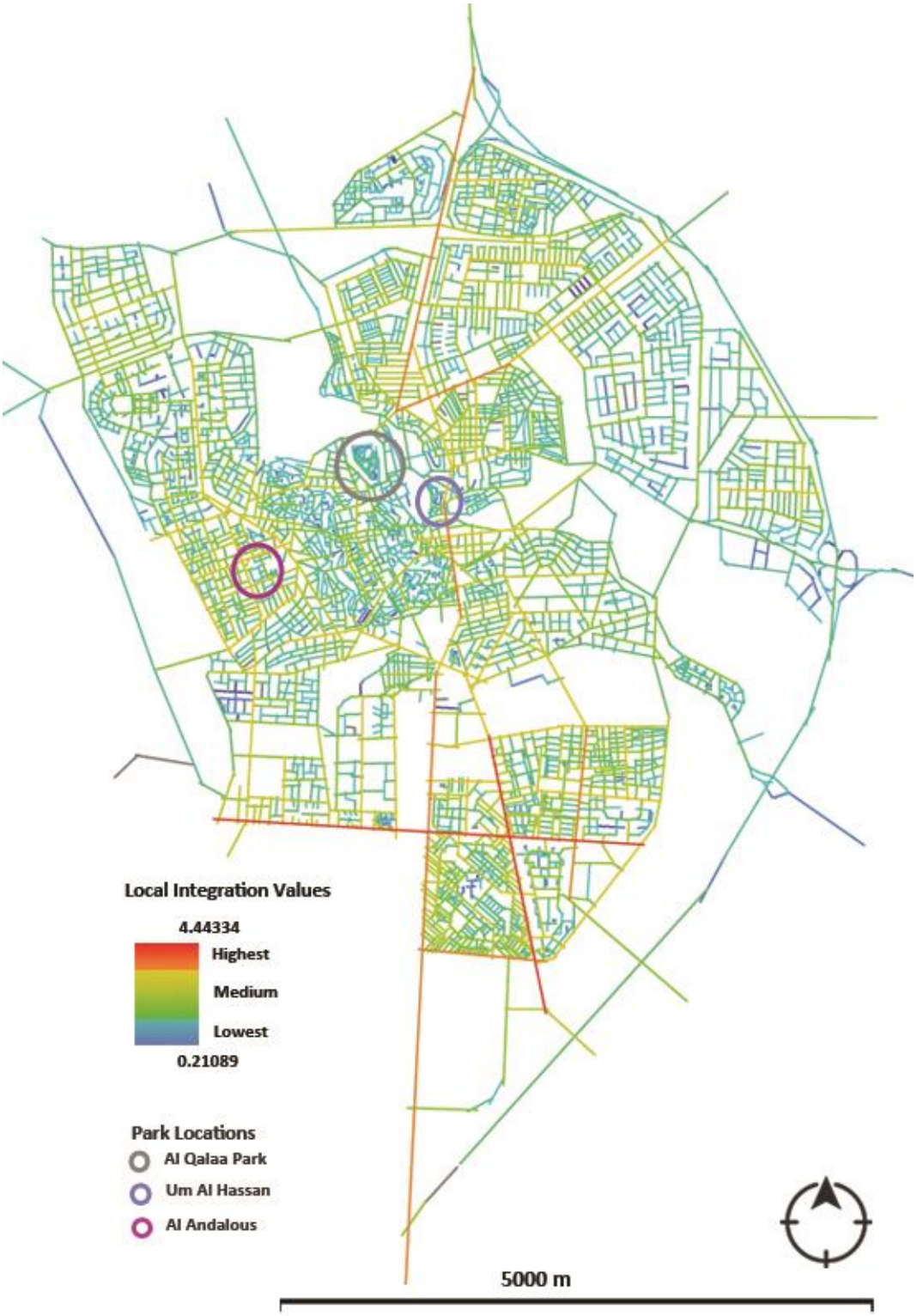


Figure 5.17 Hama City- Space Syntax Local integration Map and Case Study Park Locations

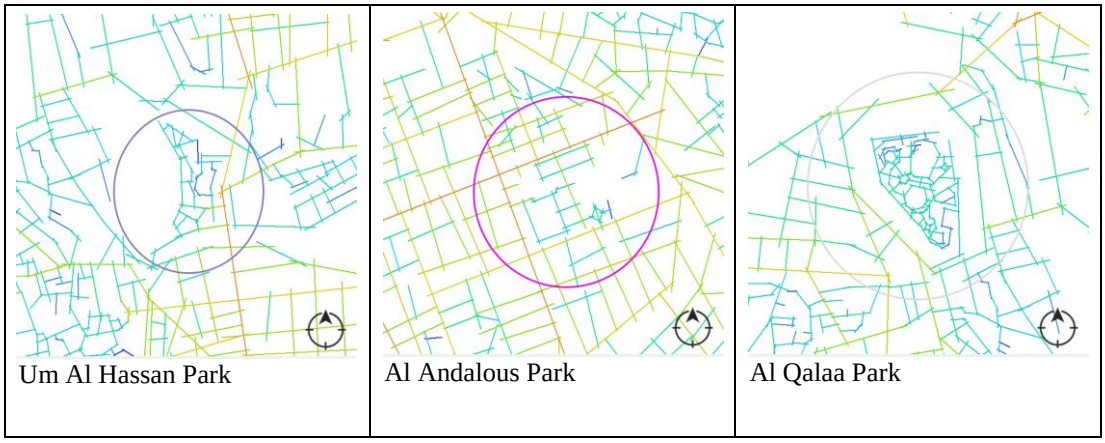


Figure 5.18 The local integration maps around the three parks

According to the syntactic values presented in Table 5.1, the mean local integration value is 1.804, which is more than that of other Arab cities; however, this difference is not significant, whereas the local integration value in Hama is significantly lower than that of any other cities in the world.

If we consider the intelligibility of Hama (the correlation of global integration to connectivity) (Table 5.1), it is found to be less than in the cases of cities in the USA, Europe, and also in Arab cities. From Table 5.1, it can be seen that intelligibility of Hama is comparable to UK cities, while other Islamic cities seem to have higher intelligibility. Raman (2003) claims that density and length of axial lines have a strong influence on intelligibility, and argues that this influence explains the reason why naturally grown cities such as those in the UK or Iran become less intelligible when they grow bigger, whereas US cities have increased connectivity due to the longer lines. (Hillier, 1996). The broken line structure of Hama, particularly, in the inner city, accounts for its lower intelligibility.

5.2.2.b. Axial map analyses inside the three parks

This research used the framework produced by Zhai and Baran (2013), in which axial map analyses were applied to understand the configuration characteristics of parks and other urban open spaces. As explained in the Methodology Chapter, in section 3.4.1.3, axial map analysis was applied in the three investigated parks by using Depthmap software, in order to investigate the integration values of spaces inside these parks.

Um Al Hassan Park

According to the integration values (radius n) (Figure 5.19), the most integrated area of the park is the western part, which is bounded by the Orontes River. The main path in the park, which runs from south to north along the river was the most integrated one. The middle-southern part of the park is classified as a space with medium level of integration, which contains the two pathways at the east and south main entrances of the park. While the north-eastern area of the park has lower integration values.

Figure 5.19 Global integration map inside the park (to the left) and plan of Um Al Hassan Park (to the right)

Al Qala Park

The integration map of the inside of the park (Figure 5.20) shows that the middle-western area of the park, containing the playground and café, is the most integrated part. The axis from the entrance area to the western edge of the park, passing through the playground, has the highest integration values, while the path, which runs along the western edge is ranked in second place. The north eastern and western parts are classified as areas with a medium level of integration, while the southern part of the park has the lowest integration values.

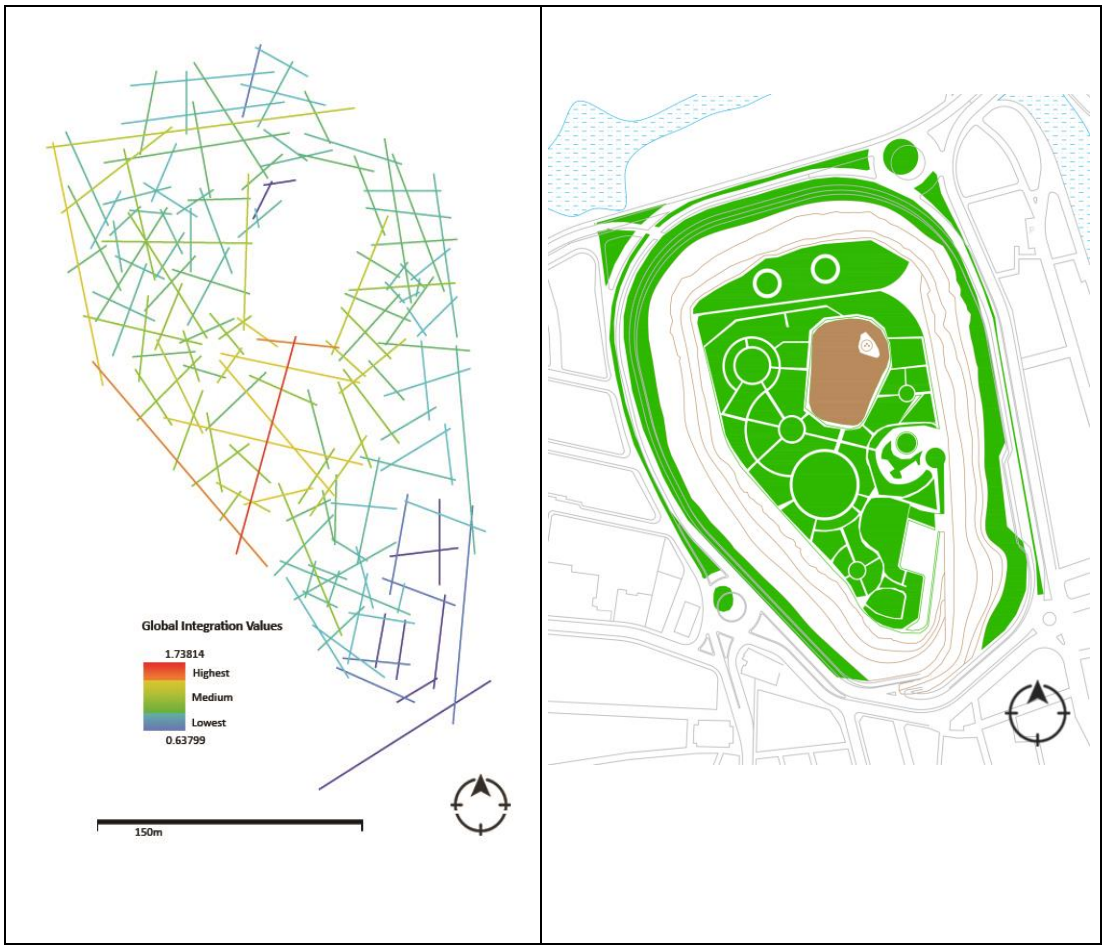


Figure 5.20 Global integration map inside the park (to the left) and plan of Al Qalaa Park (to the right)

Al Andalous Park

According to the integration values presented in Figure 5.21, the main axis in the park, which passes through the park from north to south, is the most integrated pathway in the park, while the southern area near the park entrance also has high integration values. The inner part of the park has medium integration values, while the northern part has the lowest integration values.

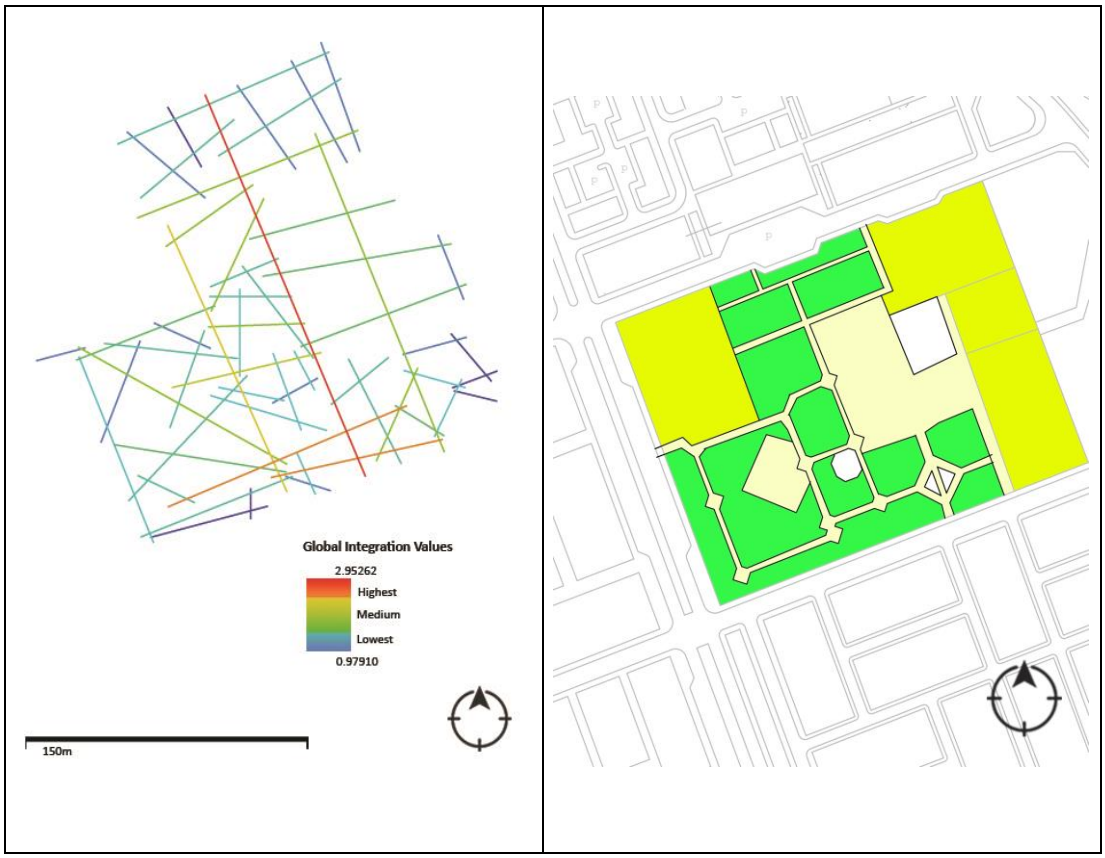


Figure 5.21 Global integration map inside the park (to the left) and plan of Al Andalous Park (to the right)

5.3. Conclusion

This chapter has discussed the findings of the spatial study, which was conducted in order to understand the physical and spatial structure of Hama and the context of the three case study parks. The findings from the land use survey illustrate that land use patterns in Hama were clearly affected by its topology, in which it is divided by the Orontes River into two main districts Al Souk and Al Hadir Districts. The dominant land use in the city is residential, and the commercial (retail and office) land use is distributed mainly in the city centre area and in the centre of each district. Public open spaces are distributed primarily along the banks of the Orontes River and the central parks in the city are Al Qalaa and Um Al Hassan Parks. The global integration map of Hama shows that the most integrated core, the north-south axis, is separated into two parts, within the two main districts, and connected with the most integrated road in the city, Saaed Al Aas Street. The north-south axis is predominantly surrounded by retail, thus as found in previous studies (Hillier, 1999), the commercial land use in Hama is primarily located on the highly integrated streets in the city.

The finding of the local level study presents Um Al Hassan Park as surrounded by a high-density mixed use area, in which commercial use (retail and offices) is the dominant land use. The park is open to the Orontes River from the south and west and enclosed by built-up areas to the north and east. The main typology of the nearby built form is perimeter blocks, and the streets surrounding the park have active frontages at the ground level. The park is bounded by streets with high integration values globally, and high to medium integration values locally. The most integrated part inside the park is the west pathway running near the bank of the Orontes River. Al Qalaa Park, being on the site of the castle, is clearly marked as a landmark looking over the city. It is surrounded by high to medium density mixed uses areas, and the main land uses are residential and commercial (mainly retail). The typology of the adjacent built form is terraced houses and perimeter blocks, and the surrounding streets have active frontages at the ground level. The park is located in an area in Hama with a medium to low level of integration, both locally and globally. This result is predictable because it is the site of the ancient castle with only one access. The middle-western area of the park is the most integrated one, comprising the playground and a café. Al Andalous Park is

surrounded by medium density land use, mainly residential. The park is enclosed by built-up areas on all sides and the main typology of the nearby built form is terraced houses. The streets surrounding the park have inactive frontages at the ground level. The park is bounded by streets with a medium level of integration globally and by the most locally integrated streets. The inner strip of the park, which connects the north and south entrances is the most integrated area in the park. The findings are summarised in Table 5.2 below.

Table 5.2 Land use, urban form and integration values

	Um Al Hassan Park	**Al Qalaa Park**	**Al Andalous Park**
Predominant adjacent land use	Commercial (retail and office)	Residential and commercial (mainly retail)	Residential
Urban form (Typology, density and street frontages)	Perimeter blocks	Terrace houses and Perimeter blocks	Terrace houses
	High density	High to medium density	Medium density
	Active frontages	Active frontages	Inactive frontages
Global integration values	High integration	Medium to low integration	Medium integration
Local integration values	High to medium integration	Low integration	High integration
The most integrated areas inside the parks	The path along the river side (north to south)	The middle-western area of the park	Inner north-south strip of the park

The findings of the spatial study are used in Chapter 7, along with the findings of the social study (Chapter 6) in order to evaluate the quality of the parks and the processes used to design, develop and maintain them, The evaluation is followed by recommendations for improving the quality of public open spaces in Hama. The next chapter, Chapter 6, discusses the findings of the social study.

Chapter 6 - The Social Study

This chapter presents the findings of the social study, which reveal the social attributes that relate people in Hama to their public open spaces. The purpose is to explore people's perceptions of the built environment, their preferences and interpretations of public open spaces, and their behaviour in these spaces. As explained in Chapter 3, an open-ended questionnaire was used to understand residents' perceptions of the built environment in Hama and its public open spaces and their preferences in these spaces. Observation and behavioural mapping were also used to explore users' behaviour in these spaces. Finally, to reveal professionals' perceptions regarding public open spaces in the city, semi-structured interviews were conducted with representatives from the public and private sector who are engaged in design and implementation. The three sections in this chapter report and discuss the findings from each of these methods.

6.1. Residents' Perception

This section reviews and analyses the results of the open-ended questionnaire explained in section 3.4.2.1. This survey was conducted with residents to elicit their perceptions of the built environment in Hama, particularly the parks. The interpretation of the survey responses varies from more global aspects to more specific points, in which valuable information is generated about how the respondents perceived and appreciated the parks and the environment. The significance of any response is indicated by the level of its frequency throughout the tables summarising the answers to the questions. There was no information available on the socio economic data on Hama.

This section discusses first the compiled answers to the questions, the participants' responses and their reasons, presented in tables and sorted in descending order of frequency to provide an indication of the most important responses and the reasons given. Participants' responses were then classified into dimensions (Abdalla, 1998), according to the researcher's interpretation.

The answers to the questionnaire are divided into four parts, starting with personal information about the 76 respondents, followed by general information about Hama,

then information about the culture and social life in the city and finally information about the needs of users in parks in Hama.

6.1.1. Respondents

This part includes data about the age of the respondents, their gender, level of education, work status and area of residence in Hama.

Age groups:

Table 1 subdivides respondents according to their gender and age into six groups within the survey; also it indicates the gender of the respondents as 41 males and 35 females.

Table 6.1 Age groups

Gender	Age groups						
	16-24 years	25-34 years	35-44 years	45-54 years	55-64 years	Over 65 years	Total
Male	4	12	8	6	7	4	41
Female	7	10	7	5	4	2	35
Total	11	22	15	11	11	6	76

Level of education:

Table 2 presents the same respondents classified according to their level of education:

Table 6.2 Level of education

Gender	Level of education						
	Elementary School	High School	Diploma	Bachelor Degree	Master Degree	PhD Degree	Total
Male	1	6	9	20	2	3	41
Female	1	8	10	15	1	0	35
Total	2	14	19	35	3	3	76

Area of residence:

In Table 6.3 respondents are classified according to their area of residence.

Table 6.3 Area of residence

Gender	Area of residence										
	Garb Al Mashtl	Janoub Almalab	Alsha riaa	Hai Albas	Aljla	Al Andal ous	Hai Alalam in	Al Hadir	Tarik Halab	City Centre	Total
Male	10	4	3	2	2	2	4	4	4	6	41
Female	6	2	2	4	1	7	3	2	4	4	35
Total	16	6	5	6	3	9	7	6	8	10	76

From the three tables presented above, Table 6.1 shows that 54% of the respondents were male and 46% female. The highest %age of the respondents, 29%, were in the age group 25-34 years, while the other respondents were distributed evenly among the other age groups, except the over 65 group, with 8%. Table 6.2 shows that almost half of the respondents, 46%, were educated to Bachelor degree level, while 2.6% of them had only an elementary level of education. Finally, Table 6.3 shows that, although respondents were distributed among various neighbourhoods in the two main districts in Hama, Al Hadir and Al Souk, the largest number of respondents, 21%, were living in Garb Al Mashtal.

6.1.2. General Information about Hama

This section combines three general questions about Hama, and each question is analysed separately. The aim of these questions is to reveal respondents' perceptions of their built environment.

Q1. Mention three places that contribute to the urban character of the city. Give two reasons for each choice.

Table 6.4 Compilation of all responses to question 1 and reasons

Area	Freq.	Reasons	Freq.
The castle	36	View to the city(beautiful view)	23
		Historical importance	19
		Being in the heart of the city (location)	15
		Its height and being a park	13
		Attracting tourists	9
Old city (Al Tawafira, Al Kylaniaa, Al Bashoura)	28	Historical importance	17
		Location (on the bank of the river, city centre)	16
		Its distinctive architectural character	11
		Social life	6
		Tourism	5
		Ancient materials (ancient black stones)	3
		The coherent of the neighbourhood	3
Norias	24	Historical importance	12
		Beautiful settings	15
		Iconic architecture	7
		Uniqueness	10
		Its historic watering system (function)	10
Al Azim Palace (Old Museum)	23	Historical importance	14
		Architectural aesthetic	6
		Distinctive architectural style	8
		Attracts tourists	3
		Being in the heart of the city (location)	5
		Old landmark	3
Orontes River	15	Location (in the heart of the city)	10
		Topographic nature	2
		Include important landmarks, Norias	8
		The green agriculture spaces alongside the River	6
		Function (watering the city)	4
		Attracts different activity around	1
Al Jamaa Al kabir Mosque	13	Architectural aesthetic	6
		Historical importance	13
		Religious importance	8
		Attract tourists	3
Al Mansouria Souk, Burhan Souk, and all the old souks	10	Architectural aesthetic	4
		Weather adaptation(cool in summer and warm in winter)	3
		The combination between old and modern	4
		Being in the heart of the city (location)	2
		Have good service	3
		Good example of Arabic cities' planning	1
		Remind us of the past	1
		Economic reasons	1

Sahat Al Assi (Al Assi Square)	10	Location (city centre)	6
		The presence of the Norias and river	5
		Include important landmarks	4
		Accessibility and connectivity	2
		Hama Clock	1
Public parks (Um Al Hassan Park)	9	Beautiful views (Norias, Orontes River, green space)	11
		Location (city centre)	7
		Have good plan and the water tunnel for watering it from the Norias	2
Al Mouhafaza Building	4	Architectural aesthetic	2
		Archaeological importance	1
		Location (city centre)	1
Khan Restum Pasha	4	Historical importance	3
		Archaeological (old) architectural style (domes)	3
Hama Clock	3	Location (on the congestion of main roads)	1
		Distinctive architectural style	1
		Architectural aesthetic	1
		Landmark in the city	1
Apamea Al Sham Hotel	4	Location (near the natural settings)	3
		Modern architectural character	
		Encourages tourism	1
		Archaeological importance	1
Al Hamamat	4	Archaeological importance	3
		Its distinctive architectural style	2
		Attract tourists	1
Branch of Baath Party Building	2	Architectural aesthetic	2
		Location (city centre)	2
The two regions Al Souk and Al Hadir	2	Different social life and culture	2
		Location	2

All the respondents in the survey except two answered this question, despite the nature of the question, which required a degree of knowledge about Hama city and its urban character. The respondents showed a good understanding of their city and its natural and built environment. The places most frequently mentioned as important in the way they combine to form the urban character of the city were the castle, the old city, the Norias, the old museum (Al Azim Palace), and the Orontes River. This result was not unexpected, as these places give Hama city its special identity.

The Castle has a special importance to people in Hama, due to its location in the heart of the city on the hill with a panoramic view of the whole city along with the Orontes River and the Norias, in addition to its historical significance. Participants also mentioned its importance as the main park, Al Qalaa Park, in the city that attracted

them by its beautiful landscape and views. Historical importance was the most cited reason given by the respondents concerning the importance of the old city, Al Azim Palace and the Norias in forming the urban character of Hama. Although Al Azim Palace is actually located within the old city, it was often mentioned separately by the respondents, due to its historical importance in people' minds[28]. Location also emerged as a strong reason among the respondents, because all of these places are situated in the heart of the city and some of them on the banks of the Orontes River, which passes through the heart of the city. The distinctive architectural character of the old neighbourhood and the old museum with the ancient materials used (ancient black stones[29]) helps in enriching the urban character of the city, while the iconic architecture of the wooden Norias along with its historic watering system has a significant footprint in Hama city's identity. People believed that the social life in the old city was an important factor in creating a lively and coherent neighbourhood.

The Orontes River was also cited by the respondents as a place which contributed to the urban character of the city, due to its importance in Hamwi[30] people's life. The presence of the river offers a dramatic natural landscape combined with the presence of the Norias, and creates a strong and distinctive sense of character for the city. In addition to these places, people mentioned other places that contribute to the urban character of the city, such as the old markets known as Souks; the Grand Mosque- Al Jamaa Al Kabir; Al Assi Square- Sahat Al Assi; and Um Al Hassan Park.

Q2. Mention three important landmarks in the city. Give reasons why they are important.

Table 6.5 Compilation of all responses to question 2 and reasons.

Landmark	Frequencies	Reasons	Frequencies
Norias	58	Historic importance	36
		Uniqueness	26
		Identity	22

[28] See Chapter 4 section 4.4 for more details about the historical importance of Al Azim Palace.
[29] These ancient black stones were first used by the Mamelukes in 1515, see Figure 4.12 in Chapter 4.
[30] Hamwi means people in Hama

		Beautiful settings	19
		Distinctive architectural character	17
		Architectural aesthetic	13
		Has special sound	9
		Its historic irrigation system (function)	9
		Location (in the centre)	7
The castle	45	Historical importance	33
		Distinctive landmark	14
		Being in the heart of the city (location)	12
		Its height and view to the whole city (beautiful view)	10
		Free park for all people(economic issues)	9
		Being the main park	9
		Social communication	7
Old Museum Al Azim Palace	22	Historical importance	21
		Its distinctive architectural character	11
		Architectural aesthetic	8
		Location (view to the river)	7
Al Jamaa Al kabir (Grand Mosque)	18	Historical importance	12
		Religious importance	10
		Architectural character	6
		Architectural aesthetic	5
		Social aspects	4
		Location (in the centre of the city)	4
Al Tawafra area	18	Historical importance	14
		Its distinctive architectural character	13
		Location (on the bank of the river, city centre)	9
		Tourism	6
Public parks (Um Al Hassan Park)	14	Beautiful views (Norias, Orontes River, green space)	12
		Location (city centre)	9
		The city lungs	4
		Has a good plan and the water tunnel for irrigating it from the Norias	2
Orontes River	12	Natural aesthetics	12
		Location	11
		Historic value	7
		Irrigating	4
Al Mansouria Souk, Burhan Souk, and old souks	8	Distinctive architecture	5
		Historic importance	5
		Being in the heart of the city (location)	4
		Commercial importance	4
Al Hamamat (public Baths)	6	Historical importance	4
		Its distinctive architectural style	4
		Traditions	3
		Entertainment	2
		Previously used the water	2
Al kylania Bridge	7	Location (on the river in the old city)	8
		Beautiful view	6

		Architectural character	4
Hama Clock	2	Location (on the congestion of main roads)	2
		Landmark in the city (known)	2
		Distinctive architectural style	2
Khan Restum Pasha	6	Historical importance	4
		Historical architectural style (domes, fountain)	3
		Architectural aesthetic	3
		Location	2
		Religious importance	3
Al Nouri Mosque	7	Historical importance	5
		Religious importance	4
		Location(near the river)	2
		The city's heritage	2
		Social aspects	1

The answers concentrated on the Norias and the Castle. The Norias are the most distinguishing features, for the respondents. The distinctive and aesthetic architecture of the Norias, together with their historical importance, give Hama its identity, as it is known as Madinet Al Naowair 'the city of Norias'. The historic functions of irrigation remind people of the olden days. The uniqueness and the special sound of the Norias attracts the residents to visit them.

Participants also cite the old museum- Al Azim Palace, the old mosques (mainly Al Jamaa Al Kabir), Al Tawafra area in the old city and the Orontes River with the public open spaces around it as landmarks in the city. Most of these landmarks were cited as important places forming the urban character of the city, and this is generally true, because the landmarks in a city contribute to forming the urban character of the city and its identity (Lynch, 1960).

Q3. List three things you wish to happen in the city to improve and enhance its status. Give reasons.

Table 6.6 Compilation of all responses to question 3 and reasons

Responses to question 3	**Freq**	**Reasons**	**Gender**		**Total**
			Male	**Female**	
Improve the built environment	48	Cleanness	10	9	19
		Aesthetic values	9	9	18
		Architectural character	9	3	12
		Economic concern	5	6	11
		Environmental concern	4	6	10

		Essential	6	4	10
		Religious concerns	1	1	2
Improve road network (consider disable people)	38	Reduce congestions	17	8	25
		High standard	8	6	14
		Connectivity	4	8	12
		Safety from accidents	6	6	12
		Cars numbers increase	2	2	4
		Cleanness	0	3	3
Improve green public spaces in the neighbourhoods and the bank of the Orontes river	33	Attractive	12	6	18
		Essential	10	7	17
		Environmental concerns	5	5	10
		Comfort	4	6	10
		Safety	5	4	9
		Cleanness	4	1	5
Restoration work (historical places)	21	Capture the past (historical values)	10	4	14
		Architectural character	10	2	12
		Economic concern (touristy)	7	3	10
		High standard	3	0	3
		Cleanness	1	0	1
Social centres and services (community centres, libraries, cafe and restaurants, play area, cinema, public toilets)	24	Essential	6	5	11
		Gathering, entertainment	2	6	8
		Attractive	1	3	4
		Safe for children	1	3	4
		High standard	2	6	8
		Cultural importance	0	1	1
Improve public transport	15	Economic value	2	2	4
		Essential	4	3	7
		Reduce congestions	2	0	2
		High standard	1	2	3
		Comfort	0	4	4
Restoration of unplanned areas	9	Environmental concern	4	1	5
		Social problems	1	0	1
		High standard	4	2	6
		Aesthetic values	2	2	4
		Comfort	3	0	3
Education centres Expand the university	13	Economic concerns	3	3	6
		Essential	3	4	7
		High standard	6	5	11
Pedestrian zones	9	Safety from accidents	2	1	3
		Economic concerns	1	0	1
		Reduce congestions	3	1	4
		Aesthetic values	1	0	1
		Convenient	1	1	2

Table 6.6 confirms that residents were keen on improving the built environment in Hama (63% of the respondents). They mentioned cleanness[31] in the city as a significant aspect, along with the aesthetic values of city architecture. Improving road networks and public open spaces in the city were also important issues mentioned by 47%of respondents. The emphasis on improving the road network was mainly in order to reduce congestion and therefore minimise the number of accidents. Moreover, they mentioned that this improvement would enhance the connections in the city.

Recently, the number of cars has increased to such a level that roads are unable to accommodate them and overcrowding has become a real problem. 32% of the residents linked improving the road network with the provision of public transport. They believed that real enhancement in the public transport system would provide a solution to the congestion problem. In addition, they added that public transport was essential for them and a more economic choice.

Improving public open spaces in Hama would have an effective role in enhancing the status of the city, according to the respondents. 37% of the residents believed that the provision of good quality spaces was essential for them to live happily and to enjoy living in the city. These public open spaces need to be attractive, comfortable, and safe. Respondents pointed out that most of the parks in the city were unattractive (23%), unsafe (21%) and uncomfortable (18%) to use, for many reasons, including the absence of security and the poor state of the public facilities.

28% of the respondents criticised the unplanned green public spaces around the banks of the river, as they were interested in using these spaces for their accessible location and attractive scenic qualities, characterised by the Norias on the river. Moreover, 26 % of the respondents mentioned the importance of social centres and public services, such as community centres, libraries, playgrounds and public toilets. This is because they need high-standard places for gathering and entertainment, and they want safe areas for the children to play and enjoy their time out of doors.

[31] By cleanness, respondents meant a clean environment, with no litter, clean toilets, etc.

6.1.3. Special Information about the Culture and Social Life in Hama

This section contained one question about traditional activities in the city. The aim behind this question was to understand the culture and social life in Hama and to investigate if there is any relationship with the public parks.

Q4. Mention three important traditional activities people used to perform in the city, and which you would like to see maintained. Give two reasons for each choice.

Three respondents did not answer this question.

Table 6.7 Compilation of all responses to question 4 and reasons

Responses to question 4	Freq	Reasons	Gender		Total
			Male	Female	
Al Rabbee Festival (spring festival)	56	Entertainment	11	13	24
		Economic values	7	14	21
		Traditional	10	9	19
		Improvements in the city (cleanness)	4	5	15
		Cultural importance	4	5	12
		Improve tourism in city	6	5	8
Religious celebration	51	Spiritual	11	10	21
		Social interaction	11	15	26
		Sentimental	6	8	15
		Traditional	7	8	15
		Children's happiness	4	9	13
		Identity	4	3	7
		Food and drink	2	5	7
Visiting the flower show, Al Zouhour Exhibition	23	Social interaction	4	7	18
		Shopping	9	10	15
		Entertainment	5	6	14
		Traditional	4	3	11
		New experience and knowledge	3	5	8
		Sentimental	5	4	9
		Identity	3	4	7
Attending sport activities (Horse Riding)	12	Entertainment	6	4	10
		Social interaction	3	4	7
		Sentimental	4	2	6
		Gathering of people	3	4	7
Traditional Souks	4	Shopping	2	0	2
		Tradition	3	0	3
Visiting the parks	8	Social interaction	6	2	8
		Meeting people	2	3	5
		Spending time	3	2	5

		Family reasons	3	1	4
Ramadan Night shopping	4	Sentimental	0	1	1
		Gathering of people	1	0	1
		Entertainment and leisure	0	1	1

Hama residents have a strong association with their culture and social traditions[32]. They appreciate this relationship (Alkilani, 2002), and that was clearly seen in their answers to this question.

The spring festival (Al Rabbee Festival) and religious celebrations appear as the most important traditional activities that people perform in the city. Al Rabbee Festival, which was cited by 73% of the respondents, is a traditional annual celebration in Hama, which takes place in spring and goes back to the second half of the twentieth century. The festival consists of various activities, such as exhibitions, shopping tents around Al Qalaa Park and cultural and social activities. Respondents mentioned the importance of the entertainment activities within the festival, such as fun fairs in Um Al Hassan and Al Qalaa Park, horse riding, exhibitions, theatre performances, concerts and the election of Miss Al Rabbee Festival. The respondents also emphasised the importance of this festival in terms of improving the economic situation in the city, through the large shopping fair, which takes place around the site of the ancient castle. In addition to the traditional and cultural importance of this festival, other respondents cited the positive maintenance and improvements of the public facilities within the city prior to the festival: for example, maintaining the continuous flow of the Orontes River which keeps the Norias running, and the organization and cleaning of the city roads, especially within the city centre area. (Figure 6.1)

Religious celebrations are among the most important activities in people's lives, cited by 67 % of the respondents. These celebrations occur at certain times every year, such as Eid Al Fitr and Eid Al Adha[33], and people traditionally gather in outdoor places with some of the parks engaging in various entertainment activities, especially for

[32] For more information on the culture and tradition of the society in Hama see section 4.3 in Chapter 4.

[33] These are the main Islamic celebration, Eid Al Fitr comes after Ramadan, the fasting month while Eid Al Adha comes after Hajj, the Pilgrimage to Makkah in Kingdom of Saudi Arabia.

children. This notion was confirmed by 32% of the respondents, who mentioned the significance of religious celebrations in generating social interactions. In addition to the traditional importance of these celebrations in Hama society, they also hold spiritual and sentimental feelings.

(a) Shopping tents: people gather around Al Qalaa Park

(b) Al Zohour Exhibition in Um Al Hassan Park: people buying flowers

(c) Fun activities at Um Al Hassan Park

(d) Flowers show along the main pathways in Um Al Hassan Park

(e) Celebrating Miss Al Rabbee Festival

Figure 6.1 activities during Al Rabbee Festival in Um Al Hassan and Al Qalaa Parks

Further to the activities, mentioned above, respondents cited visiting exhibitions, especially the flower show, Al Zouhor Exhibition, which takes place annually in Um Al Hassan Park, and which stretches alongside its main paths in spring as one of the Al Rabbee Festival events. They highlighted enjoying the activity of buying various flowers and the importance of the social interactions and entertainment among the visitors, which make Um Al Hassan Park a liveable space during this exhibition.

6.1.4. Information about the Needs of Users in Parks and the Qualities Sought.

Q5. Do you like being in a public park? Give two reasons.

Table 6.8 Compilation of all responses to question 5 and reasons.

Responses to question 5	Freq	Reasons	Gender		Total
			Male	Female	
Yes	51	Natural aesthetic	19	13	67%
		Health issues (natural air)	9	12	
		Quietness and relaxation	9	8	
		Entertainment and social interaction	8	8	
		Hot climate	5	8	
		Psychological Comfort	9	6	
		Economic concern	3	6	
		Environmental concern	3	5	
		Location	1	2	
		Historical importance	2	1	
No	25	Unclean environment	9	9	33%
		No service no care at all	4	8	
		Unpleasant state	4	7	
		Anti-social behaviour	2	7	
		Social concern	2	4	
		Psychological Comfort missing	6	4	
		Overcrowding	3	2	
		Essential Needs	4	3	

The answers to this question revealed that 67% of the respondents liked to go to public parks and enjoy the beauty of nature. People were really keen on spending time in a quiet and relaxing environment away from the tiring aspects of life. One of the respondents said: *"I want to enjoy my time with my family and friends in the beautiful nature and smell the natural fresh air"*. Natural and aesthetic aspects, psychological comfort, hot climate, entertainment and social interaction and economic concerns were other reasons given by the respondents as to why they liked to visit public parks.

33% of the respondents did not like going to public parks because they had the idea that these places were unpleasant for them and they did not feel comfortable being in these spaces. Other respondents stated that public parks were inappropriate social places for families, as there were no places specified for families also that they were unhappy with the poor quality of the public facilities such as cleanness, the poor quality of the public toilets (mainly uncleaned) and the available seating in the park.

Q6. How often do you visit a park? Give two reasons.

Five of the respondents stated that they never visited a park.

Table 6.9 Compilation of all responses to question 6 and reasons.

Responses to question 6	Freq	Reasons not to visit a park	Reasons to visit a park	Gender		Total
				Male	Female	
Rare (once or twice a year)	24	Unpleasant places		6	9	15
		Respondents are busy		4	4	8
		Social concern		2	2	4
		Work situation		2	1	3
		Climate consideration		1	2	3
Once a month	14	Respondents are busy		3	1	4
		Climate consideration		1	3	4
			Meeting friends	1	3	4
		Work situation		2	1	3
			Spend weekend at a park	2		2
Once every two weeks	12	Unclean spaces		4	4	8
			Natural aesthetic	3	2	5
			Meeting friends	1	3	4
		Respondents are busy		2	1	3
		No private transport		1	1	2
Once a week	11		Entertainment	3	5	8
			Natural aesthetic	3	5	8
			Family gathering	2	4	6
			Comfort	1	2	3
			Location	1	0	1
Twice a week (spring and summer)	10		Natural aesthetic	5	3	8
			Entertainment	3	4	7
			Hot climate in summer	3	4	7

Although 67 % of the respondents reported that they liked to use parks, half of them rarely visited the parks. 31 % visited the parks once or twice a year and only 18 % said they might do this up to once a month. The reasons mentioned by the respondents for not visiting the parks regularly included that parks were unpleasant places for them and they did not enjoy their time there; family and work constraints, as they were busy

most of the time and did not have free time to visit a park; and also climatic considerations, as the current design of the parks and the public facilities inside them did not take climatic issues into consideration.

The residents who visited the parks every two weeks, 13 % of the respondents, provided reasons that were split between reasons for visiting and not visiting the parks. They mentioned that they did not visit the parks frequently because the parks were uncleaned spaces and they were busy with their work; however, they also explained that they visited the parks every two weeks because they liked to enjoy the natural aesthetic of these spaces, along with the opportunity to meet their friends.

A third group of respondents reported that they visited the parks once or twice a week, citing various reasons that encouraged them to visit the parks regularly. They emphasised enjoying the natural aesthetic of the parks and the relief from the hot climate in summer time, in addition to enjoying the entertainment in the parks with their families and friends. They reported that their visits occurred mainly during weekends and summer holidays.

Q7. Mention three important parks in the city you most like. Give two reasons for each.

Four respondents did not answer this question

Table 6.10 Compilation of all responses to question 7 and reasons.

Responses to question 7	Freq	Reasons	Gender		Total
			Male	Female	
Um Al Hassan Park	44	Location in city centre and on the bank of the Orontes River	24	18	42
		The presence of the Norias	10	12	22
		Natural aesthetic	7	11	18
		Private play ground	4	6	10
		Touristy	2	5	7
		Economic concern, free for all	3	3	6
		Historical importance	2	3	5
		The only park in the city	1	3	4
		Natural air	1	2	3
		Small zoo available	1	2	3
Al Qalaa Park	43	Its height and panoramic view to the whole city	18	17	35

		Location in the city centre and near the river	14	12	26
		Natural air	6	5	11
		Historical importance	4	6	10
		Natural aesthetic	6	4	10
		Seating places available	4	6	10
		Play ground	1	5	6
		Economic concern	4	2	6
Privatised spaces along the river banks, cafés[34]	28	Convenient	5	7	12
		Safe place for children	4	8	12
		High standard	6	8	12
		Natural aesthetic	3	7	10
		Location	2	4	6
		Food and drink	4	1	5
		Quietness	2	2	4
Park (Green public open space) alongside the Orontes River[35]	17	Natural aesthetic	6	4	10
		Location, easy to reach	3	6	9
		Near the Norias	6	3	9
		Basic needs Toilets	0	3	3
		Quietness	2	3	5
		Historical importance	1	1	2
Birnawi park	13	Natural aesthetic, natural cool air	3	3	6
		Seating available	2	4	6
		Fantastic view	2	4	6
Al Andalous Park	4	Location	2	2	4
		Architectural design	2	0	2
		Quietness	0	1	1
Al Thoura Park	1	Playground for children	0	1	1
		Natural aesthetic	0	1	1

Um Al Hassan Park and Al Qalaa Park were the parks most frequently cited by the respondents. Each of these was cited by 57% of the respondents. Um Al Hassan Park was chosen because of its location in the city centre and on the bank of the Orontes River, and the presence of the Norias. Moreover, respondents mentioned the importance of the aesthetic nature of the park and the private playground[36]. Various

[34] Although these spaces are technically not parks, however people in Hama do perceive them as parks, this could be because they were public open spaces then later the municipality of Hama changed the nature of them into private spaces. For more details see section 4.4 in Chapter 4.

[35] As mentioned in Chapter 4 the nature of the public open spaces, particularly the parks in Hama is largely affected by the presence of the Orontes River in the heart of the city, therefore people seems to be unable to distinguish between the parks and the green public open spaces along the river sides and perceived all of them as parks.

[36] Um Al Hassan Park does not have a public playground; however the northern east corner of the park is privately owned playground.

reasons were mentioned by the respondents for choosing Al Qalaa Park: its height and the panoramic view of the Orontes River, the Norias, and the whole city was the main reason given, in addition to its location on the site of the ancient castle. The respondents also cited its historical importance and its aesthetic nature and the fresh air in the park. Although talking about one's economic situation is not culturally welcomed in Hamwi society, some of the respondents did mention that these parks are free and therefore they are affordable for everybody to use.

The private cafés along the banks of Orontes River were perceived by 37% of the respondents as parks and were the third most frequently cited places. The respondents emphasised the provision of high-standard essential facilities which people need in such places and which are missing in the public parks. Other reasons were the provision of safe playgrounds for children, in which parents feel relaxed about allowing their children to play independently, in addition to the availability of food and drinks to buy. The green public open spaces alongside the Orontes River were cited with less frequency, by 22 % of the respondents, because of their natural aesthetic character and their location near the Norias and being accessible to some of the respondents who lived nearby. Although it is the third largest park in the city, Al Andalous Park was cited only four times and the respondents chose it mainly because of its location near their homes.

Q8. Mention three important parks in the city you don't like. Give two reasons for each.

18 respondents did not answer this question. And some of the respondents mentioned only two places.

Table 6.11 Compilation of all responses to question 9 and reasons.

Responses to question 8	Freq	Reasons	Gender		Total
			Male	Female	
Private cafes alongside the river such as Al Beshreat, Jisr Al Marakep, Al Jazira Al Khdraa, Al Maamoria.	15	Unaffordable	5	6	11
		Lack of service	3	6	9
		Unhealthy	3	3	6
		Smiley	2	2	4
		Inconvenient	2	1	3
		Anti-social behaviour	1	2	3

		Lack of cleaning	1	1	2
Parks (Green public open space) alongside the Orontes River Bab Al Naher, Al Beshriat	13	Pollution	5	1	6
		Unplanned	2	4	6
		Lack of public service	3	3	6
		Inconvenient	1	4	5
		Lack of water in the river	3	1	4
		Lack of cleanness	4	0	4
		Smelly	2	1	3
Um Al Hassan Park	13	Lack of service and care	3	6	9
		Lack of security	1	3	4
		Pollution	2	1	3
		Anti-social behaviour	1	3	4
		Used to pass through	1	0	1
Green public open spaces at roundabout[37]	6	Unsafe	2	4	6
		Inconvenient	1	3	4
		Uncomfortable	0	3	3
		Unclean	1	1	2
Al Malahi Park	5	Lack of cleaning	3	4	7
		Lack of care	3	3	6
		Location	1	2	3
		Lack of playground	1	2	3
		Inconvenient	1	2	3
Al Qalaa Park	5	Lack of lighting	1	3	5
		Poor seating quality	1	3	4
		Unsafe for children	1	2	3
		Lack of care for play areas	1	2	3
		Neglect places	1	2	3
Al Andalous Park	5	Lack of cleaning and care	1	4	5
		Unplanned and unsafe	2	2	4
		Lack of lighting	1	3	4
Al Birnawi	2	Unsafe	1	1	2
		Unorganized	1	1	2
		Lack of service	1	0	1

Although the private cafes along the river were cited 28 times as good places to go to, they also were mentioned 18 times by respondents as places they did not like to use. The main reason cited was that the places were unaffordable to visit. The respondents also mentioned the poor quality of the facilities, which were supposed to be of a high standard. Another reason mentioned was the bad smell of the river, as the flow of the

[37] Again here people in Hama do not distinguish between the parks and the green public open spaces. They mentioned the use of the spaces at roundabouts, which are the green spaces available at the intersections of streets, as a park because in the context of Hama these spaces are used by people as parks due to different reasons as mentioned in chapter 1. (See Figure 6.2).

Orontes River is not consistent during the year; for example, on summer days the level of the water becomes low which causes the bad smell.

The green public open spaces alongside the river were reported as undesirable by 22% of the respondents, and the reasons were mainly the same as the ones mentioned for not choosing the private cafés, apart from the affordability issue. Um Al Hassan Park was also mentioned by 22% of the respondents in their answers to this question. They claimed that lack of care and the poor quality of the public facilities; lack of security, and the presence of anti-social behaviour by some of the users were the reasons for not visiting the park. The green public open spaces at roundabouts were cited by 14% of the respondents as unpleasant spaces, mainly because they were considered as unsafe, inconvenient and uncomfortable to use as a park (Figure 6.2). Al Qalaa and Al Andalous Parks were also cited by 9% of the respondents, mainly on the grounds of the poor quality of the lighting system and lack of care and public facilities.

(a) People sitting on the side of Ein Alouza Street

(b) People sitting on the side of Al Kaylaneh Street

(c) People sitting at Al Sabounya Roundabout

(d) People sitting at Al Raaess Roundabout

Figure 6.2 People using roundabouts and streets sides as parks despite the fact that they are unpleasant spaces

Q9. How do you get there? By (bus, car, walking) Give two reasons. **.**

Table 6.12 Compilation of all responses to question 9 and reasons.

Responses to question 9	Frequencies	Reasons	Gender		Total
			Male	Female	
Walking	26	Healthy sport	16	7	23
		Near distance	11	7	17
		Difficulty with public transport	9	7	16
		Economic concern	8	6	14
Car and taxi	26	Distance from home	10	10	20
		Public transport bad condition	8	11	19
		Have private car	8	9	17
		Easy to reach	11	6	17
Bus	24	Economic concerns	7	9	16
		Distance from the home	7	7	14
		Do not have private car	5	6	11

The respondents' replies are distributed in three almost equal groups in terms of the mode of transport they use to visit a park. The reasons given for choosing walking were: it is a healthy activity, difficulty in accessing public transport, the short distance from home and economic reasons. Respondents who cited car and taxi also mentioned the distance from their homes and the poor condition of public transport. They said it was easier to reach the parks by car, especially for those who have their own private cars. The group of respondents who used the bus to reach public spaces stated that they mainly used it because they could not afford private transport.

Q10.What are the three important qualities or needs you require from a public open space, which eventually encourage you to visit the space again?

Table 6.13 Compilation of all responses to question 10 and reasons.

Responses to question 10	Freq.	Reasons	Gender		Total
			Male	Female	
Cleanness	38	Health	13	17	30
		Comfort	7	11	18
		Pleasant	6	11	17
		Comfort	6	10	16
		High standard	5	10	15
Good Facilities	38	Clean water	10	13	23
		Adequate Seating places	6	11	17
		Improve Lighting	4	9	13

		Mosques for women	2	7	9
		Parking places	6	2	8
		Pollution	3	4	7
		Signs for direction	3	2	5
		Provide clean food	3	2	5
		Vendors	1	1	2
		Public transport	2	1	3
Public toilets	28	Essential	12	18	30
		High standard	6	9	15
		Cleanness	6	8	14
		Convenient	4	7	11
Playground	19	Safety	8	9	17
		Necessary	2	8	10
		Old one inappropriate	1	7	8
		Pleasant	1	3	4
Maintenance	10	Lighting, seating and pathways.	6	3	9
Soft landscape	9	Maintenance	5	4	9
Safety and security	9	Missing surveillance	4	6	10
		Anti-social behaviours	3	5	8
		Safe place	2	4	6
Aesthetics values	9	Relaxing	3	4	7
		Natural settings	2	4	6
		Comfort	2	3	5
		Quietness	1	1	2
		Organisation	1	1	2
Easy to reach	3	Economic concern	2	1	3
		Location	1		1
Free to public	3	Economic concern	1	2	3

From the respondents' answers, it is clear that the most important qualities and needs that they were seeking in parks were a clean environment, good facilities and the provision of public toilets. The reasons given by the respondents were mainly health concerns, essential needs, comfort, adequate seating places, good lighting qualities and provision of clean water. Respondents claimed that having such essential facilities and qualities in their parks would encourage them to use them more frequently and might encourage them to prolong their visits. One of the respondents stated *"it is necessary to have high standards and clean public toilets in a park, especially when you are visiting the space with your family and children"*. Other respondents concentrated on the need for safe, pleasant playgrounds for children. They pointed out that, even if provided in some parks, playgrounds were inappropriate and unsafe to use. Maintenance was also mentioned by the respondents, they stated that almost all facilities were in need of maintenance in the parks referred to in the survey. Pathways,

lighting and seating places were not maintained properly, according to the participants. Aesthetic values, safety and security were cited with less frequency. (Figure 6.3)

(a) Litter on ground

(b) Broken bench

(c) Broken swing.

Figure 6.3 Poor physical quality (lack of maintenance)

Q11. Mention three activities you most like to do in a public park.

One respondent did not answer this question.

Table 6.14 Compilation of all responses to question 11 and reasons.

Activities respondents like to do	Frequencies
Enjoy the beautiful nature	22
Recreation and Relaxing	17
Entertainment	15
Meet with the family	14
Meeting with friends	13
Food and drink	13
Sitting in the fresh air	10
Walking	8
Reading a book	8
Play with children	6
Thinking	5
Talking to others	2

The most cited activity was enjoying the beautiful natural landscapes in parks. Respondents said that they like to sit and relax in parks and enjoy the attractive views of the natural environment and the fresh air. Other activities cited were entertainments, meeting with family and friends, walking, reading a book, and playing with children.

Q12. What are the three things that make you feel unsafe in a public park? Give two reasons.

Five respondents did not answer this question and two said they felt safe in public spaces.

Table 6.15 Compilation of all responses to question 12 and reasons

Responses to question 12	Freq	Reasons	Gender		Total
			Male	Female	
Lack of safety and Security	60	Anti-social behaviour	11	11	22
		Problems caused by teenagers	9	11	20
		Psychological and physical harm	5	8	13
		Lack of signs for dangers	7	6	13
		Lack of security personnel	6	5	11
		Theft	9	1	10
		Accidents (Sudden fire)	3	4	7
		Lack of lighting	3	4	7
		Strange people	3	3	6
		There is no fence or walls alongside the Castle	4	2	6
		The presence of the river inside the park	1	1	2
Lake of safety for children in playgrounds	28	The quality of the material	7	10	17
		Keep children safe	3	5	8
		Strange people	3	2	5
		Poor lighting	0	1	1
Health concern	21	Public health	8	5	13
		Lack of cleanness	6	5	11
		Illness	3	5	8
		Some insects which might be harmful	1	1	2
Pollution	6	Air pollution	2	2	4
		Smoking	1	2	3

The lack of safety and security was the main cause of feeling unsafe in parks. Respondents gave various reasons about feeling unsafe and these were mostly anti-social behaviour[38], some types of problems caused by teenagers, lack of security personnel, lack of signs warning of dangers and lack of lighting causing psychological and physical harm to them. The respondents also mentioned lack of safety in children's playgrounds because of the poor quality of the material used and the presence of

[38] In the context of Hama city, anti-social behaviour is mainly related to women being harassed or molested.

strangers around. Similarly to the answers in question 10, respondents were concerned about public health and mentioned the lack of clean environments and the possibility of catching infections because of poor hygiene.

Q13. Which places do you prefer to visit public parks or the privatized cafes and restaurants? Give two reasons.

One respondent did not answer this question.

Table 6.16 Compilation of all responses to question 13 and reasons.

Responses to question 13	Freq.	Reasons	Gender		Total
			Male	Female	
Public space	38	Enjoy the beautiful nature	11	13	24
		Economic concern	13	9	22
		Fresh air	5	7	12
		Freedom	5	4	9
		Entertainment	5	3	8
		Psychological comfort	5	2	7
		Good place for children play	3	2	5
		Comfort	3	1	4
		Sport	1	1	2
Restaurant	28	Good facilities	4	5	9
		Provides safety	3	5	8
		Food and drink	3	4	7
		Cleanness	2	3	5
		Quietness	2	2	4
		Enjoy time with family	1	2	3
		There are no social problems	3	0	3
		High standard	0	2	2
		Entertainment	1	1	2
Cafe	10	Good facilities	5	2	7
		Cleanness	2	2	4
		Entertainment	2	2	4
		Get some drinks	2	1	3
		Safer	1	2	3

Half of the respondents stated that they preferred to visit a park rather than a restaurant or café, because they enjoyed the beauty of nature in these places and they like to sit freely enjoying the natural fresh air. Another important reason mentioned was economic concerns, as 30% of the respondents mentioned that they could not afford to visit private restaurants and cafés. The other half of the respondents preferred to visit commercial restaurants and cafes, explaining that these places provided them with

their required needs and facilities such as safety, a clean environment, as well as food and drink and entertainment.

Q14. Mention three things you would like to happen to improve the public parks. Give two reasons.

Nine respondents did not reply to this question, 5 males and 4 females. Answers were quite similar to the answers in Q10 in terms of ensuring cleaner public spaces, improving public facilities, providing public toilets, maintenance, care of playgrounds and provision of safety and security. With regard to public facilities, the respondents stressed the need for kiosks. Some new ideas were added by the respondents which might improve the quality of public parks.

Table 6.17 Compilation of all responses to question 14 and reasons.

Responses to question 14	Freq.	Reasons	Gender		Total
			Male	Female	
Improve Cleanness in public parks	24	Health	5	6	11
		Pleasant	3	4	7
		Comfort	5	2	7
		High standard	3	2	5
		Increase visitors numbers	1	2	3
Improve public facilities	23	Comfort Seating places	9	3	12
		Provide Park cafes and kiosks	5	3	8
		Clean water to drink	5	2	7
		Planning and Organization	3	2	5
		Cleaning workers	2	1	3
		Sign for directions	1	2	3
		Improve paths materials	2	1	3
		Vendors	1	1	2
		Entertainment, boat trips		1	1
		Provide prayer area	1		1
Public toilets	23	Essential	5	6	11
		Comfort	3	1	4
		Cleanness	3	4	7
		High standard	2	1	3
		Encourage visitors	1	3	4
Care of Play ground	19	Safety	3	6	9
		Pleasant - entertainment	3	5	8
		Old one inappropriate	2	1	3
Maintenance	9	Lighting, seating, pathways and play grounds.	3	4	7
		Care of flowers	2	2	4
Safe and security	9	Missing surveillance	3	1	4

		Anti-social behaviours	2	1	3
		Safe place	2	1	3
		Provision of security men	2	2	4
Domestic animal area	9	Knowledge about local animals	3	3	6
		Children entertainment	1	2	3
		Beautiful	2	1	3
Provide qualified staff to oversee the parks	7	Prevent vandalism	2	1	3
		Worker training	1	0	1
Improve lighting	6	Safety	1	2	3
		Wonderful view at night	2	1	3
		Encourage visitors	1	2	3
care of landscape, Plant various plants and flowers,	6	Aesthetic value	3	3	6
		Knowledge about plants	2	1	3
		Improve landscape	2	1	3
		Psychological comfort	1	1	2
Provide Public transport	4	Increase visitors number	1	1	2
		Easy to reach public spaces	1	1	2
		Economic concern	0	1	1
Prevent smoking	4	Health concern	2	2	4
Prevent privatised public spaces	1	Economic concern	1	1	2

Respondents mentioned that providing a small area with domesticated and farm animals in the park would possibly enhance the quality of the park by encouraging more visitors. They claimed that people tended to visit Um Al Hassan Park especially families with children because of the local urban farm which was there. Further reasons were given by the respondents for the importance of such areas in the parks, mainly providing information about local animals and offering entertainment for visitors, particularly children.

Moreover, respondents suggested that providing specialised staff to take care of the parks would help a lot in improving the present quality of the spaces. They believed that qualified staff would be able to deal with the different groups of users and therefore help in reducing vandalism in parks. In addition, they emphasised the importance of security personnel in parks, to provide a feeling of safety for users.

Respondents showed good understanding of the importance of soft landscaping, for example, plants and flowers in parks. They emphasised the necessity to improve this aspect by planting different kinds of plants and flowers, which can ensure a pleasant

landscape all the year around, in addition to their educational value to the users. Finally, respondents mentioned the significance of the planning and organization needed to keep the parks under control, and the importance of qualified staff to take care of these spaces.

Q15. Mention three changes which have happened to the parks that you do not like. Give two reasons.

12 respondents did not answer this question, and 20% of the respondents (15 out of 76) did not find any changes in the parks that they did not like.

Table 6.18 Compilation of all responses to question 15 and reasons.

Responses to question 15	Freq.	Reasons	Gender		Total
			Male	Female	
Change to private spaces	16	Economic concern	9	4	13
		Loss of public spaces	3	1	4
		Reduce the available public spaces	5	2	7
Neglected places	12	Deserted cleanness	2	3	5
		Uncomfortable seating places	2	3	5
		Lack of maintenance	2	3	5
		Environmental pollution	3	1	4
		No clean Toilets	3	1	4
		Playground missing	1	2	3
		Decrease in visitor number	1	2	3
		Pathway materials	1	1	2
		Reduce number of water taps	0	2	2
Less concentration on plants and trees	8	Cutting trees and replacing them with hard landscape	3	2	5
		Green scenery decreased	2	1	3
Decrease park spaces	8	Different facility	4	2	6
		Loss of large part from green area	1	3	4
		Taking spaces for parking	1	2	3
Smoking	4	Health	1	2	3
		Disturbs Visitors	1	1	2
Orontes river flow	3	Less rain water	2	0	2
		Water reservation behind dams	1	0	1
		Pollution	1	0	1

The main change reported by the respondents was the privatisation of the public open spaces. A number of these spaces have recently been changed to private spaces[39], and thus become unaffordable for some of the users, as mentioned by 20% of the respondents. Another 15% of the respondents claimed that this reduced the available choices.

18 % of the respondents also reported that parks had become neglected places and the public facilities offered by the city council were limited. Uncleaned parks, inadequate and uncomfortable seating, lack of maintenance, environmental pollution and the absence of clean public toilets were reasons given by the respondents in explaining their opinions as to why parks were neglected places. As a consequence of these problems, the number of users visiting the public parks has decreased and some of them have started to use the private cafes and restaurants as an alternative, whenever they could afford them.

Another change, which was reported by 10% of the respondents was that there appeared to be less concentration on preserving plants and trees in the parks. They claimed that the council tended to cut down some of the trees and replace them with hard landscaping; therefore, both shading from sun and the beautiful green landscape provided by the trees were reduced. Other respondents mentioned that the council did not plant a variety of types of trees and flowers in public spaces, so the beautiful views of trees and flowers were not present all the year round.

An administrative problem cited by 12% of the respondents was the decrease in the area of the allocated park spaces. The council had changed the land use of some public spaces into administrative buildings, private clubs, places for religious observance, and parking areas. For example, in Al Andalous Park a large area was changed into sports club, cafe and a mosque.

[39] As mentioned earlier in note (1) in Question 7 some of the public parks changed to private spaces because the council were unable to maintain all the available public open spaces, especially the ones alongside the Orontes river; therefore they took the decision to allow investment in some of these spaces. See section 4.4.in Chapter 4 for more details.

Q16. Mention three things in public parks from the past, which you would like to have again. Give two reasons.

17 of the respondents did not answer this question while 5 of them did not wish any change.

Table 6.19 Compilation of all responses to question 16 and reasons.

Responses to question 16	Freq.	Reasons	Gender		Total
			Male	Female	
The presence of the domestic animals in Um Al Hassan Park	13	Attract children	2	4	6
		knowledge about animals	2	2	4
		Increase the number of visitors	1	3	4
		Aesthetic values	1	1	2
		Liveliness	1	1	2
Water mills (Tawahin)	8	archaeological importance	2	3	5
		beautiful viewing	3	2	5
		Cultural heritage	1	1	2
Present of fruit trees and national flowers, Roses and jasmine	7	Nice smell	2	2	4
		Beautiful nature	1	2	2
Working Norias and the continuous flow of the river	7	Heritage of parents and grandparents	2	1	3
		Watering the lands around them.	2	1	3
		Increase visitor numbers			
		Reduce pollution	1	1	2
Boat trip on the river	6	Entertainments	3	2	5
		Cultural importance	2	1	3
Eid celebrations in parks	5	Social importance	2	3	5
		Children entertainment	1	2	3
Art exhibitions and cultural activities and celebration	2	Keep the folklore	1	1	2
		Social communication	1	1	2

According to the respondents' answers, the presence of the local urban farm in Um Al Hassan Park was a very important feature, which encouraged them to regularly visit the park. They explained that the presence of the animals in the park attracted them, especially children and gave them knowledge about the local animals. One of the respondents said *"it was a pleasure for me and my kids to stand in front of the pond in Um Al Hassan Park and watch the ducks swimming in the water and feed them"*.

12% of the respondents also mentioned the ancient water mills called Tawahin[40], which were located on the Orontes River. They suggested that the Tawahin should be maintained and run again, because of their historical importance and the beautiful views they provided to visitors. In addition, running the water mills would encourage people to visit the surrounding parks.

Respondents showed a strong relationship with nature and the soft landscape, 10% of them reported that in the past there were various kinds of fruit trees and national flowers like roses and jasmine which provided a nice smell and made the landscape beautiful. Another 10% of the respondents also mentioned the continuous flow of the Orontes River and the running of the Norias. Recently, the flow of the river has been less than at previous times, because of the lack of rain and the storing of water in reservoirs behind dams. Respondents explained the importance of running the Norias, as they were the heritage of their parents and grandparents and because of their function in watering the lands around them. The special sound and the lovely environment around Norias would increase the number of visitors to the surrounding parks, according to the respondents. Boat trips on the Orontes River were an added value in the past, as mentioned by 9% of the respondents, and offered entertainment for the parks' visitors. Finally, 7% of the respondents reported the importance of the Eid celebration in parks, which enhanced social interactions and offered the residents entertainment activities, especially for children.

6.1.5. Classification of the Responses

Compiling the responses from each question in the survey resulted in 4204 responses, which provided information related to respondents' perceptions and preferences regarding the built environment and parks in Hama. The information was not very manageable in this form, and therefore, a method of classification was required. According to the researcher's interpretations, participant's responses over all the questions were classified into dimensions (section 6.1.5.1), in order to distil the most

[40] See section 4.4 in chapter 4 for more details about the ancient water mills and their importance for people in Hama.

important aspects and qualities reported by the respondents and the reasons they gave. This was followed by an informative explanation of each dimension and its variables, to examine and discuss the reasons for its importance. The significance of any particular dimension was considered according to the level of the frequency with which the variables related to that dimension are mentioned.

6.1.5.a. Dimensions

Dimensions, in this context, can be defined as the motivating forces behind people's involvement in the environment, eliciting a sense of the significance of objects, being stimulated by activities, and their feeling and thinking by aspects (Aspinall and Ujam 1992, Abdalla, 1998, and Alameddine, 2005).

Aspinall and Ujam (1992) categorise children's preferences concerning public gardens into three groups: objects, activities, and aspects. These categories "were seen as reference points for both need and experience of place in the design development" of a local public garden. (ibid. p. 127). Abdalla (1998) argues that such motivating forces are behind any occurrence in the environment, whether the occurrence is physical or emotional, visible or invisible, permanent or transitory. In this research, when any dimension is under discussion, this could represent the accumulation of many reasons and their responses, including objects, activities, and aspects[41]. For example, the social aspect is a dimension driven by motives such as going to a park, sitting on bench, eating, meeting friends, talking to people, enjoying the natural aesthetics and fresh air.

The presence of a variable in any dimension is irrespective of its intrinsic qualities, whether it contributes positivity or negatively. For instance, in the safety dimension, unsafe issues such as psychological and physical harm, pollution, and lack of lighting are listed. In this research, such issues are perceived as motives that need to be accommodated in any design and maintenance strategy in the city. For example, the

[41] These categories emerged from discussion with Dr. Foazi Ujam at the Edinburgh College of Art, 2009. Ujam expressed his interpretation of people's perceptions, in which he classifies them into three categories: objects, activities, and aspects. He argues that dimensions are the motivating forces behind people's involvement in the environment.

lack of lighting becomes a motive to improve the lighting system in the parks and provide more lighting units, therefore enhancing the feeling of safety for the parks' users. The issue of pollution becomes a reason to provide a clean environment in parks, resulting in pleasant and healthy places.

The dimensions and the variables emphasised by the respondents are presented in Table 6.20.

Table 6.20 The Dimensions

Dimensions	Variables	Freq	Total
Safety	Safety and security, Cleanness, Children safety, Public Health, Hygiene, Anti-social behaviours, Lack of lighting, Clean water and food, Pollution, Psychological and physical hurt, Quality of materials, Lack of signs of danger, Thieves, No fence alongside the castle park, Prevent smoking	745	
Historical	Historical importance, Castle, Norias, Attract tourists, Al-Azim palace, Old city, Al Jama Al Kabir, Old souk, Um Al Hassan Park, heritage, Al-Nori mosque, Ancient materials.	688	
Comfort and Relaxation	Comfort, Essential, Quietness and relaxation, Enjoying natural air, Convenient seating places, Convenient, pleasant, Maintenance, Psychological comfort, Public toilets, Hot climate in summer, Mosque for women.	623	
Social and cultural aspects	Social interaction, Social activities, Traditions, Cultural and religious celebration, Identity, Celebration and exhibitions, Family reason, Social life, Meeting people, Old city, Al Rabbee Festival, Cultural values, Gathering of people, Visiting relatives, Ramadan nights shopping, Talking to others.	534	
Aesthetics	Beautiful settings, Natural aesthetics, Architectural aesthetics, Uniqueness, Aesthetic value, Attractive, Iconic architecture.	482	
Leisure	Entertainment, Attract tourists, Food and drink, Meeting with friend and families, Norias (diving from there), Orontes River, Children happiness, walking, Hamamat (public baths), Playing with children, Boat trip in the river, Spending time.	374	
Symbolic	Distinctive architectural character, Norias, Castle, Uniqueness, landmarks, Old museum, Al-Assi square, Iconic architecture, Hama chock.	281	
Spatial	Location, Um Al Hassan Park, Al Qalaa Park, Private cafe along the river, Public park along the river, Orontes River, Al Assi Square, Connectivity.	263	
Economic	Affordability, Economic concerns, Economic values, Traditional Souk, shopping, Economic development, Commercial importance, vendors.	214	
Total		4204	4204

Safety:

The respondents' answers indicated that the most important quality they sought was related to safety and security, an essential stage in Lang's hierarchy of basic human needs (Lang, 1987). Its variables were mentioned 754 times throughout the survey responses.

Table 6.21 Safety dimension and its variables

Dimensions	Variables	Freq	Total
Safety	Safety and security	185	
	Cleanness	149	
	Children safety	89	
	Public Health	82	
	Hygiene	49	
	Anti-social behaviours	37	
	Lack of lighting	35	
	Clean water and food	32	
	Pollution	23	
	Psychological and physical hurt	20	
	Quality of materials	19	
	Lack of signs of danger	13	
	Thieves	10	
	No fence alongside the castle park	6	
	Prevent smoking	5	
	Subtotal	754	754

Respondents expected security and safety needs to be achieved by ensuring that personal safety, health and wellbeing needs are met, and that security from threats and social problems are minimised. The need for a clean environment in parks was considered essential: 80% of the respondents reported that they hoped to enjoy pleasant and healthy spaces, of a high standard, and in a comfortable environment. A further 80% of the respondents referred to the need for convenient public facilities such as public toilets, adequate seating places, sufficient lighting, and safe playgrounds for children. The most frequently mentioned concern was feeling unsafe in parks because of anti-social behaviour. Child safety was another important aspect. 60 % of the respondents stated that they did not feel comfortable allowing their children to play in public playgrounds. They cited poor maintenance of these areas as their main concern and complained that the materials used there were unsuitable and unsafe.

Historical:

Historical dimensions emerged as an important quality of public open spaces in Hama. Respondents referred to their variables 688 times throughout the survey, including the historical importance of the Castle, Norias, Al Azim Place, the old city, Um Al Hassan Park and the Grand mosque, Al Jama Al Kabir. Such answers revealed that the attachment and connection of the respondents to their public open spaces arose because such spaces reflected their history and heritage. This clarifies the respondents' answers about the public spaces most significant to them. They mentioned Al Qalaa Park as their favourite and most important place. People were attached to it because of its historical significance.

Table 6.22 Historical dimension and its variables

Dimensions	Variables	Freq	Total
Historical	Historical importance	325	
	Castle	76	
	Norias	74	
	Attract tourists	54	
	Al-Azim palace	43	
	Old city	43	
	Al Jama Al Kabir (Grand Mosque)	28	
	Old souk	12	
	Um-Al Hassan Park	12	
	heritage	12	
	Al-Nori mosque	7	
	Ancient materials	2	
	Subtotal	688	688

Comfort and Relaxation:

Comfort was one of the important qualities people said that they seek in their public parks, which matches the findings cited by Carr et al. (1992). The respondents mentioned comfort and its related variables 623 times, and the responses included essential, quietness and relaxation, enjoying the fresh air, convenient seating places, convenience, pleasant, maintenance in public spaces psychological comfort, public toilets and the hot climate in summer.

Table 6.23 Comfort and relaxation dimension and its variables

Dimensions	Variables	Freq	Total
Comfort and relaxation	comfort	100	
	Essential	90	
	Quietness and relaxation	62	
	Enjoying fresh air	62	
	Convenient seating places	51	
	Convenient	51	
	Public toilets	47	
	Maintenance	44	
	Pleasant	39	
	Psychological comfort	37	
	Hot climate in summer	22	
	Mosque for women	18	
	Subtotal	623	623

Comfort was related to both physical and psychological comfort. Adequate and convenient seating places, safe and sheltered from sun, the provision of clean public toilets and the presence of pleasant playgrounds for children were the main elements in physical comfort. The respondents mentioned that the provision of regular maintenance to the materials used in parks can enhance the physical comfort of these spaces. Psychological comfort was expressed through respondents citing enjoying fresh air and pleasant views of the river, Norias, and natural elements such as trees and flowers. Enjoying the quietness of the park and relaxation were strong reasons for people to use parks. The essential and convenient variables cover many qualities of a public park that facilitate its use, such as sufficient protection from the hot climate in summer and cold in winter, improved public transport, parking areas, improving the physical quality of the green spaces on the banks of the river and the presence of kiosks and vendors.

Social and Cultural:

Public open spaces play a significant role in people's life. The findings from the questionnaire survey support Carmona's ideas (2003), in that the respondents perceived Hama's public parks not only as physical entities but as spaces with which, individually, they had complex relationships and likewise, that a relationship existed between people and their surrounding environment (Carmona et. al., 2003). The public parks were perceived as green spaces to visit but also as places for social and cultural communication.

Table 6.24 Social and cultural dimension and its variables

Dimensions	Variables	Freq	Total
Social and cultural	Social interaction	122	
	Social activities	68	
	Traditions	56	
	Cultural and religious celebration	53	
	Identity	37	
	Celebration and exhibitions	36	
	Family reason	29	
	Social life	27	
	Meeting people	20	
	Old city	20	
	Al Rabbee Festival	19	
	Cultural values	17	
	Gathering of people	13	
	Visiting relatives	11	
	Ramadan nights shopping	4	
	Talking to others	2	
	Subtotal	534	534

The social and cultural dimension in the context of this research refers not only to the ordinary people gathering and meeting in public parks but also to cultural and traditional aspects. From the survey responses, it was found that the respondents referred to variables related to social and cultural dimension 534 times. Social interaction emerged as the most important variable and was related to people's communication in public parks and their engagement in the cultural and religious celebrations and exhibitions, which occurred mainly in public parks. Religious celebrations encourage social activities such as children's entertainment in parks, gathering of people and visiting relatives. Al Rabbee Festival emerged as an event holding many social and cultural values, and again generated social interactions through the various activities that took place during the festival. It gives Hama city a special identity and atmosphere.

Identity was also signified by respondents as an important variable in the social cultural dimension. Identity gives a sense of attachment to location and yet assures individuality. It is about social relationships and complex involvement with others (Weeks, 1990).

Hama society still has strong family relationships, in which were cited as an important aspect in generating the social and cultural dimension in public parks. Meeting families

was repeated as a reason for encouraging visits to public parks and cited as reasons for engaging in the various activities of festivals, exhibitions and celebrations.

Aesthetics:

The aesthetic dimension was mainly related to the natural settings and architectural character of public spaces in Hama. The respondents referred to the variables related to aesthetics 482 times.

Table 6.25 Aesthetic dimension and its variables

Dimensions	Variables	Freq	Total
Aesthetics	Beautiful scenery	107	
	Natural aesthetics	128	
	Architectural aesthetics	54	
	Uniqueness	36	
	Attractive	26	
	Aesthetic value	24	
	Iconic architecture	7	
	subtotal	482	482

The beautiful setting and aesthetics of the natural environment emerged as the most cited variables of the aesthetic dimension in public spaces. Respondents mentioned these aspects when asked about the places that contributed to the urban character of the city, the landmarks, and the public parks they liked to visit, including Al Qalaa Park, the Norias, the Orontes River, Um Al Hassan Park and the Park along the Orontes River. The presence of the Norias, with their iconic architecture, along the Orontes River close to most of the public parks in Hama was perceived as giving uniqueness to these spaces and distinguished them as being more attractive to visit.

Respondents referred to the architectural aesthetics as an important aspect in the city and its public spaces including, the old city, the old souk, the Norias, Al Azim Palace (the old museum) and Hama clock.

Leisure:

Leisure is a quality of a public open space that represents the involvement of users with each other and their surroundings. It offers time for social interactions and provides opportunities for relief from the stress of a busy life. The respondents

mentioned the variables related to leisure 374 times. Recreation was the most cited reason for various responses and was related to cultural events, religious celebrations and activity in public parks.

Table 6.26 Leisure and entertainment dimension and its variables

Dimensions	Variables	Freq	Total
Leisure	Recreation	106	
	Meeting with friend and families	83	
	Food and drink	64	
	Attract tourists	34	
	Norias (diving from there)	21	
	Orontes River	15	
	Children happiness	13	
	walking	10	
	Hamamat (public baths)	9	
	Playing with children	7	
	Boat trip on the river	6	
	Spending time	6	
	subtotal	374	374

Various activities in public parks were given as variables for leisure, such as meeting with friends and family, walking, swimming in the river, diving off Norias, eating and drinking. The respondents denoted eating and drinking as important aspects during their visits to public parks and in participation in cultural and religious celebrations and exhibitions. This activity is culturally related, as in Hamwi society food and drink are an important aspect in such occasions. Walking was also an activity mentioned by respondents, mainly walking along the Orontes River.

Symbolic:

Symbolic value is linked to social and emotional meanings attached to aspects of the environment, these values are often perceived as important as the structural and physical features of people's images (Knox and Pinch, 2014). The respondents mentioned the variables related to symbolic dimension 281 times.

Table 6.27 Symbolic dimension and its variables

Dimensions	Variables	Freq	Total
Symbolic	Distinctive architectural character	88	
	Norias	58	
	Castle	45	

	Uniqueness	26	
	Landmarks	22	
	Old museum	22	
	Al Assi square	10	
	Iconic architecture	7	
	Hama chock	3	
	Subtotal	281	281

Landmarks emerged as important variables carrying high symbolic value. Norias, as landmarks, have become iconic and symbolic statements, reflecting shared community values and representing the city's identity. The Castle and Al Azim Palace have also evoked connections to the past events that stimulate the feeling of cultural continuity and sense of belonging. The respondents also cited the distinctive architectural character of the old city, the Castle, Norias, Al Azim Palace and Hama Clock as important variables related to the symbolic dimension.

Spatial:

The spatial dimension was cited 263 times by the respondents; its significance reflects the fact that public parks are the very life of the whole city. When the respondents were asked to mention the most important parks in the city, Um Al Hassan and Al Qalaa Park proved to be the most popular choices. The significance of these parks emerged from the various reasons given, including location in the city centre and near the Orontes River, natural aesthetics, archaeological importance and beautiful views. Location was the most cited reason for various responses and was related to all the parks mentioned by the respondents as important places to visit in the city.

Table 6.28 Spatial dimension and its variables

Dimensions	Variables	Freq	Total
Spatial	Location	104	
	Um Al Hassan Park	44	
	Al Qalaa Park	43	
	Private cafe along the river	28	
	Public park along the river	17	
	Orontes River	15	
	Al Assi Square	10	
	Connectivity	2	
	Subtotal	263	263

Economic:

The economic dimension was referred to 214 times by the respondents. Affordability emerged as the most significant economic variable and was mainly linked to public and private spaces.

Table 6.29 Economic dimension and its variables

Dimensions	Variables	Freq	Total
Economic	Affordability	102	
	Economic concerns	43	
	Economic values	21	
	Traditional Souk	19	
	Shopping	13	
	Economic development	7	
	Commercial importance	5	
	vendors	4	
	subtotal	214	214

Some of the people preferred to visit public parks because they were free of charge and therefore, affordable to them. In addition, other participants stated that they did not like the private cafes along the river because they were unaffordable. When the respondents were asked to mention the preferred place to visit among public parks, restaurants, or cafes, the responses were mainly public parks. Economic concern was one of the important reasons given for this choice.

Moreover, when people were asked about the way they reached public parks, 70% of the respondents stated that they walked or went by bus; again, economic concern was one of the important variables given for this. Finally, economic value was a variable generated in various events and activities in the city, such as Al Rabbee Festival, Al Zouhor Exhibition and other cultural exhibitions. This mainly happened through shopping and entertainment activities.

6.1.6. Summary

The questionnaire survey conducted for the purpose of this research provided valuable insights about how residents in Hama perceived and interpreted their built environment and public parks.

The main findings from the survey support the ideas of Carmona (2003), as the respondents perceived parks in Hama not only as physical entities but rather as complex relationships among people themselves and between people and their surrounding environment (Carmona, et al., 2010). The public parks were perceived as green spaces to visit but also places for social and cultural communication. They were important places for engagement in the cultural and religious celebrations and exhibitions occurring mainly in public parks and generating social and cultural interactions among people. The parks were highly appreciated by the users in terms of public health, natural aesthetics, psychological and physical comfort, and protection from climate.

The most important points revealed from the respondents' perception:

- The most important parks mentioned were the ones that had historical associations and central locations in the city, and these characteristics gave them their sentimental meaning and identity.

- Although more than half of the respondents liked to visit public parks, only one third of them used the parks regularly, once or twice a week. Respondents were divided equally in the three modes of transport, which are walking, car and taxi, and bus.

- Enjoying the beautiful natural landscapes in parks was the most cited activity, respondents reported that they prefer sitting, relaxing and enjoying the attractive views.

- The respondents' replies indicated that the most important quality they were seeking was related to safety and security, while the other important qualities they expect are related to comfort and relaxation. The need for comfort is related to both psychological and physical comfort. Respondents felt that if these qualities were provided, people would be encouraged to more frequently visit the parks. The poor quality of the public facilities in the parks had resulted in diminishing the parks' use.

- Privatization of some parts of the park along the Orontes River was the main change that had happened in the parks, as reported by the respondents. The response to the privatization varied among the respondents, a group of them were happy with this change as it had satisfied their basic needs in the space; however the other group of the respondents was unhappy and dissatisfied with the change and claimed that they were now prevented from enjoying the natural environment and the river without incurring any economic costs.

6.2. Users' Behaviour in the Case Study Parks

This section presents users' behaviour in the three selected case studies, in order to understand how these parks are used. Observation and behavioural mapping surveys (described and explained in section 3.4.2) were conducted in order to explore how users behaved in the three parks, and what kind of activities (standing, sitting, walking or just hanging around) they were taking part in.

The surveys were undertaken four times: twice in December 2010 (winter) and twice in August 2010 (summer). The surveys were conducted on weekdays and at weekends, three times a day: morning (9:00-12:00), afternoon (12:00-18:00), and evening (18:00-22:00). Each observed park was divided into sub-areas, according to its size. Each spatial unit was observed for 15 minutes. The number of people visiting the parks was counted at the park entrances during a 30-minute observation slot on weekdays and at weekends, and was recorded in tables. (Section 3.4.2 in Chapter 3)

The data are categorized into two parts: summer and winter surveys. In each of them, general information about the survey including dates, weather, and observation places are described. The three observed parks, Um Al Hassan, Al Qalaa, and Al Andalous Park are analysed and presented in sequence. First of all, the people counts at the parks' entrances are presented, then people's behaviour and the activities they were engaging in are illustrated and recorded whether users were male, female or children. The behavioural maps and photographs support the observed data.

6.2.1. Summer Survey: August 2010

During the August survey the weather was sunny. The temperature ranged between 37° C degrees at midday and 22° C in the evening. During most of the evening there was a cool breeze blowing across the sites, particularly in Al Qalaa Park, due to its high level. The observation points were chosen to allow as clear vision as possible.

6.2.1.a. Um Al Hassan Park

There was no significant difference between the number of people visiting the park on weekdays and at weekends probably because of the school summer holidays. As shown in the tables below, the number of users in the evening was greatest, while in the morning the number of users was slightly lower. The smallest number was recorded in the afternoon, as this is the hottest time of the day in the summer. From Tables 6.30 and 6.31 it appears that the presence of men in Um Al Hassan Park is more frequent than that of women. The number of women using the park is half that of the men and twice that of children.

Table 6.30 The number of people entering Um Al-Hassan Park: Weekday survey: Wednesday 18 August 2010

	Men	Women	Children
Morning	95	57	35
Afternoon	25	18	12
Evening	110	67	46

Table 6.31 The number of people entering Um Al-Hassan Park: Weekend survey: Friday 20 August 2010

	Men	Women	Children
Morning	70	45	28
Afternoon	22	8	15
Evening	138	78	62

Um Al Hassan Park, being in the heart of Hama city centre, was very vibrant during the summer. People of all ages (men women and children) were observed, mainly standing at the main entrance, viewing and taking photographs of Al Jisryah Noria, with the surrounding historic arches and the trees and the Orontes River. Some of the users were walking along the path by the riverside, then were pausing again and photographing the other Noria, known as Al Mamoryah. Very few visitors were observed who did not stand and look at the Noria. Some people (most of them men) were observed standing along the path near to the river on their own, or in pairs or groups, viewing the Norias while eating. Other people were observed standing with their children in front of the pond, in the south part of the park, feeding ducks and pigeons (Figures 6.5 and 6.6).

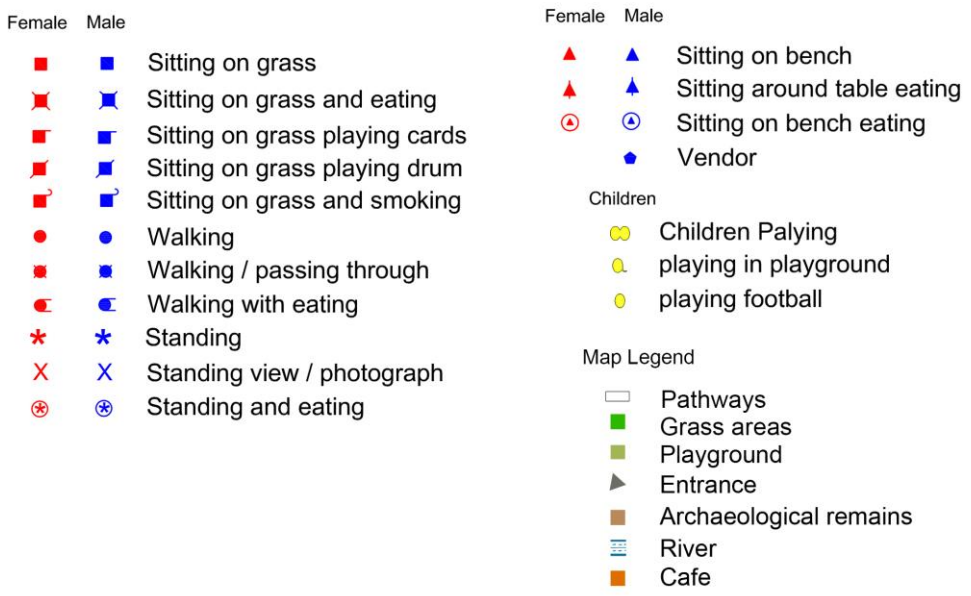


Figure 6.4 Behavioural Mapping Symbols and Map Legend

(i) Um Al Hassan Park

Weekend Friday 20th of August 2010 - Morning

(a) Standing and viewing the Orontes River and Norias

(b) Standing and viewing the Orontes River and Norias

(c) Viewing and photographing the Noria.

(d) Sitting on grass in the middle part of the park.

(ii) Um Al Hassan Park

Weekend Friday 20th of August 2010 - Afternoon

(a) Walking through the southern entrance

(b) Sitting on bench in the southern part

(c) Sitting on grass having picnic

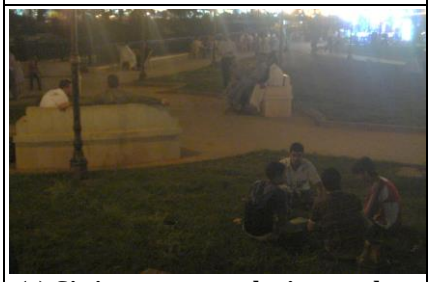
(d) Sitting on bench facing the river and Norias and children playing around

(iii) Um Al Hassan Park

Weekend Friday 20th of August 2010 - Evening

(a) Walking through the southern entrance.

(b) Standing, walking, sitting in the southern part of the park.



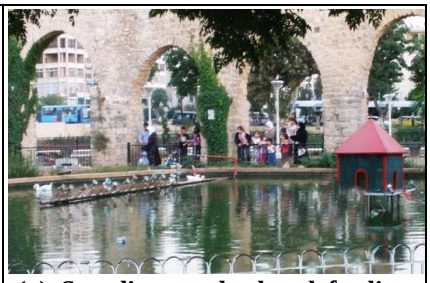
(c) Sitting on grass playing cards southern part of the park.

(d) Children buying some toys at the park entrance

Figure 6.5 Activities in Um Al-Hassan Park during weekend summer observations

(i) Um Al Hassan Park

Weekday Wednesday 18th of August 2010 - Morning



(a) Standing at the bond feeding the ducks

(b) Sitting on grass having a picnic

(c) Buying from vendor

(d) Walking along the pathway leading to the eastern entrance.

(ii) Um Al Hassan Park

Weekday Wednesday 18th of August 2010 - Afternoon

(a) Walking through and vendor at the southern entrance

(b) Standing and viewing

(c) Sitting on the stone edge in the southern part of the park.

(d) Children playing on grass area

(iii) Um Al Hassan Park

Weekday Wednesday 18th of August 2010 - Evening

(a) Sitting on bench facing the river and Norias

(b) Walking through the eastern entrance

(c) Sitting on bench and eating

(d) Sitting on benches

Figure 6.6 Activities in Um Al-Hassan Park during weekday summer observations

The most frequently observed activity in the park was sitting; either sitting on the grass areas or on the available benches along the paths. People in large groups, such as groups of friends and families with children, were observed sitting on the grass, while single individuals or small groups were observed sitting on benches. Some of the people (mainly men) sitting on the grass were also lying flat on the grass from time to time, to relax. Sitting was mostly accompanied by eating, especially for those sitting on the grass, who were primarily families with children having a picnic. Children were observed playing on the grass area around their families, since there was no public playground in the park. A few men were observed smoking traditional hubba-bubba while sitting on the grass. Seats with a good view of the Norias were the most targeted ones by the users. During morning observations, users were choosing seating places either under the trees or between the bushes; probably they were trying to shelter from the sun. A few families were seen visiting the park to have their breakfast and then leaving.

The second most frequently observed activity was walking along the paths in the park. The long path beside the Orontes River was the busiest one. Several families with children were walking towards the private playground at the north of the park. Some of the observed walking activities were accompanied by eating. Several people were seen walking in the southern part of the park near to the river on the path through to the other side of the adjacent streets. There were vendors at the main entrance to the park and a few along the paths, serving tea, coffee, ice cream, corn, and selling some children's toys. Some families were observed standing, chatting and buying products from the vendors, as shown in Figures 6.5 and 6.6.

The southern part of the park, with two entrances, was the most active and vibrant area. Many users were attracted by the beautiful natural setting and the ancient Norias and it appeared that the presence of these people attracted others to stay in this area (Gehl, 2010), which therefore became a lively place. In contrast, the densely planted part of the park to the north was hardly used, as only a few couples were observed sitting there and a few men walking around.

The park was used by all gender groups and ages, but the presence of men was dominant. Women participated in almost all observed activities in the park, apart from certain activities which were carried out by men only, such as lying flat on the grass and smoking hubba-bubba. This is possibly because these types of activities are not culturally acceptable for women in Hamwi society.

Table 6.32 Intensity of activities in Um Al Hassan Parks in the summer survey

Activities	Sitting on grass	Sitting on a bench	Sitting and eating	Sitting near playgrounds	Walking	Walking/ passing through	Standing with conversation	Standing and eating	Standing viewing and photographing	Smoking hubba-bubba
Um Al Hassan Park/ No of people involved in the activities	**155**	**160**	**345**	**0**	**140**	**135**	**45**	**32**	**85**	**30**

6.2.1.b. Al Qalaa Park

The number of people visiting Al Qalaa Park was noticeably large, especially in the evening. As found in the observations of Um Al Hassan Park, there was no significant difference between the weekdays and the weekends. The largest number of users was observed in the evening, while the number of users in the morning was significantly lower. In the afternoon, the number of observed users was the lowest, possibly due to the hot weather. From Tables 6.33 and 6.34 it appears that the presence of men in Al Qalaa Park is more frequent than that of women. The number of women using Al Qalaa Park is nearly half that of the men, and the same as the number of children.

Table 6.33 The number of people entering Al Qalaa Park: Weekday survey: Thursday 19 of August 2010

	Men	**Women**	**Children**
Morning	10	15	12
Afternoon	8	10	6
Evening	171	78	53

Table 6.34 The number of people entering Al Qalaa Park: Weekend survey: Saturday 21 of August 2010

	Men	**Women**	**Children**
Morning	28	25	17
Afternoon	18	19	11
Evening	165	120	115

(i) Al Qalaa Park

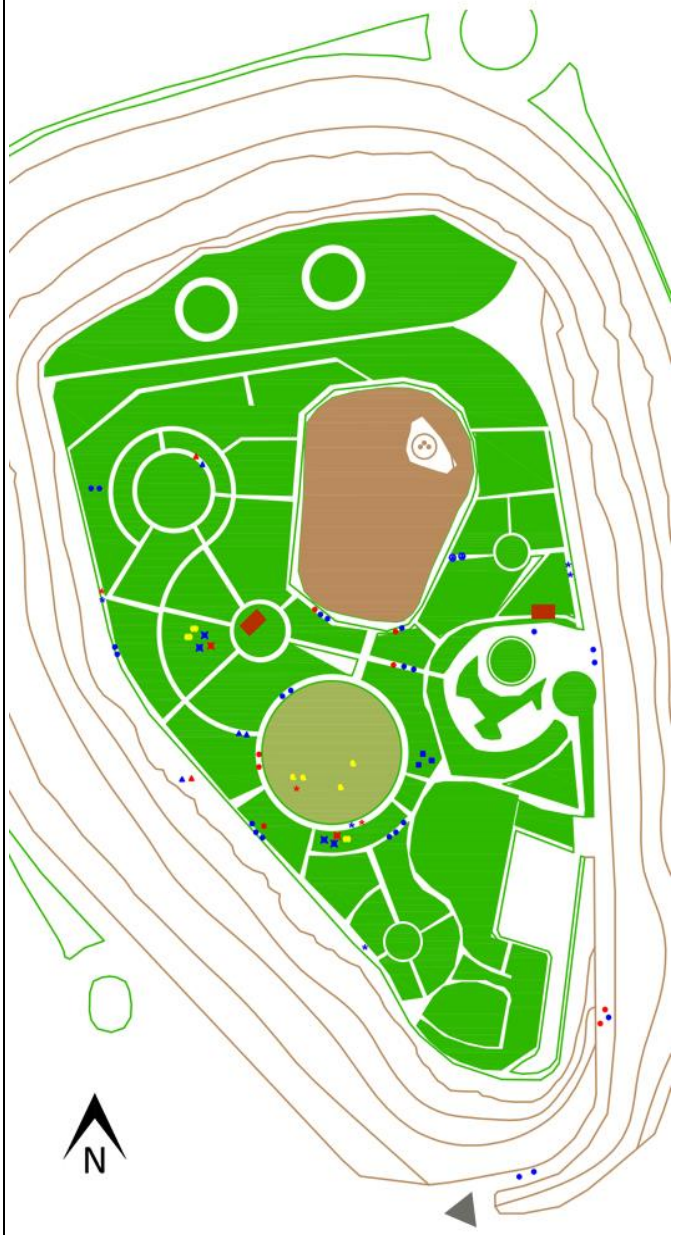
Weekend Saturday 21st of August 2010 - Morning

(a) Sitting on grass having a picnic

(b) Children playing around their families

(c) Sitting on grass in the shade of a tree

(d) Having barbeque



(ii) Al Qalaa Park

Weekend Saturday 21st of August - Afternoon

(a) Sitting in a shaded place in the western park viewing the landscape

(b) Sitting on a hired chairs

(c) Sitting in the shade

(d) Children at playground

(iii) Al Qalaa Park

Weekend Saturday 21st of August 2010 - Evening

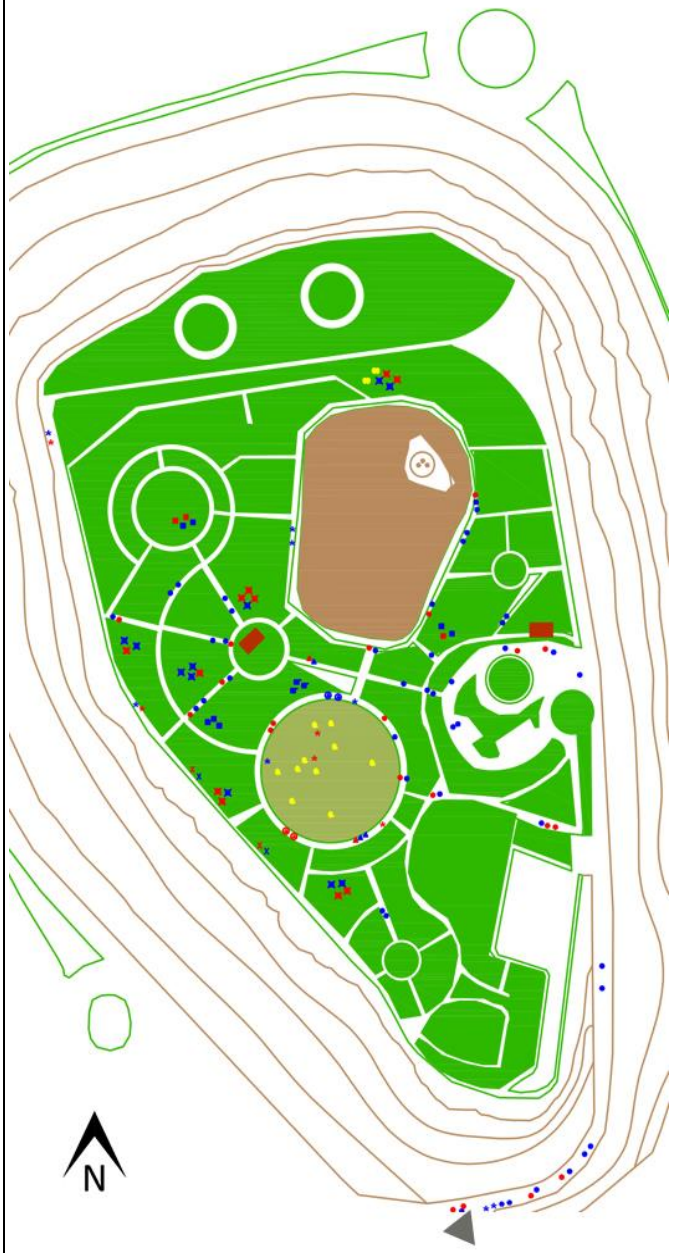
(a) Sitting on hired chairs near the café at the entrance to the park

(b) Walking along the pathway to the north

(c) Children at playground

(d) Vendor at the entrance to the park

Figure 6.7 Activities in Al Qalaa Park during weekday summer observations



(i) Al Qalaa Park

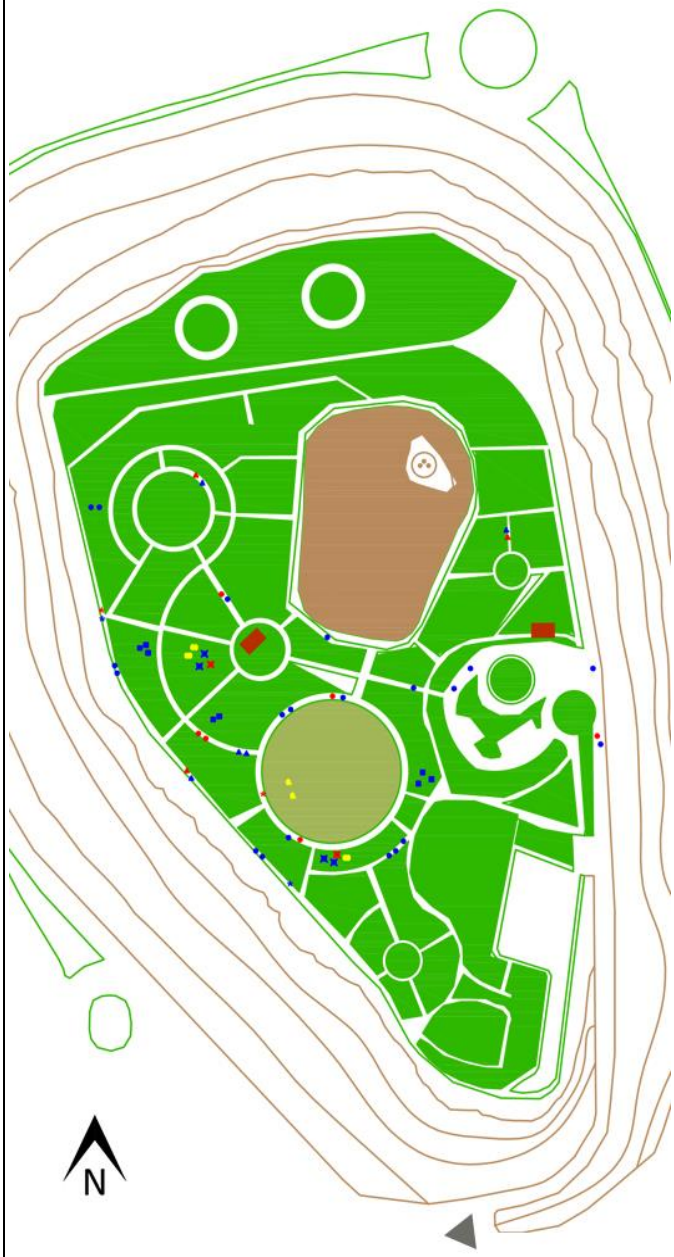
Weekday Thursday 19th of August 2010 - Morning

(a) Walking and reading in the east near the entrance

(b) Standing and viewing the river and Norias

(c) Having a picnic

(d) Sitting down relaxing



(ii) Al Qalaa Park

Weekday Thursday 19th of August 2010 - Afternoon

(a) Walking towards the café

(b) Walking along the pathway in the southern part

(c) Sitting smoking hubba-bubba

(d) Sitting at the southern edge of the park viewing the river and landscape

(iii) Al Qalaa Park

Weekday Thursday 19th of August 2010 - Evening

(a) Standing and eating near the western café

(b) Children at playground

(c) Sitting near playground

(d) Standing at the archaeological remains

Figure 6.8 Activities in Al Qalaa Park during weekday summer observations

The most visited part of the park was that facing the Orontes River, with a view of the ancient Norias and the old city, while the two least visited areas were an area by the entrance path which has a lower ground level than the other parts of the park, and a densely-wooded unplanned area to the north.

The dominant activity observed in the park was sitting. People were mainly sitting in groups, couples, or alone on the grassy areas, on the available seating at the edge of the park, or near the playground. Some of the users were lying on the grass; they were mainly men. Some of the users preferred to hire chairs[42] from the café and were therefore sitting in its surrounding areas.

Sitting was mostly accompanied by eating: some of the user groups (families and groups of men) who were sitting facing the river had a barbeque, while others (groups of men), who were smoking the traditional hubba-bubba, gathered in the area near the park entrance by the café which served them. In the morning and afternoon most of the users were trying to find a seating place shaded from the sun. Some families were having their breakfast in the shade of trees. A group of young men was sitting on the grass playing drums and singing, while another group was playing cards (a traditional game called Shadda). Families with children were sitting and watching their children playing.

People were observed walking along by the archaeological remains in the middle of the park. Some other users were seen walking through the park chatting with each other and enjoying the landscape and the fresh air during the evening. The part of the park facing the river and the Norias attracted the largest group of users (both men and women), who were standing there viewing the scenery, while others, tourists and local residents, were photographing the Noria and the river. In addition, the archaeological remains also attracted some users to stand, view and photograph. Some people were observed just standing in groups, chatting together or hanging around. As in Um Al-

[42] The cafes in Al Qalaa Park offer the people tables and chairs to hire at an affordable cheap price: they don't have to sit in the café and order any kind of food or drinks. People usually take the chairs to a place at their convenience in the surrounding area.

Hassan Park, vendors were observed along the park entrance serving different kinds of food and snacks and some people were buying from them. (Figures 6.7 and 6.8)

As in Um Al Hassan Park, the park was used by all ages and gender groups; nevertheless, the dominant gender group was men. Women were observed participating in almost all activities except some which were carried out by men only, for example, playing drums and smoking hubba-bubba. Women were not participating in such activities, probably because they are not culturally acceptable in Hama's society.

Table 6.35 Intensity of activities in Al Qalaa Parks in the summer survey

Activities	Sitting on grass	Sitting on a bench	Sitting and eating	Sitting near playgrounds	Walking	Walking/ passing through	Standing with conservation	Standing and eating	Standing viewing and photographing	Smoking hubba-bubba
Al Qalaa Park/ No of people involved in the activities	**140**	**145**	**353**	**40**	**75**	**0**	**32**	**35**	**62**	**20**

6.2.1.c. Al Andalous Park

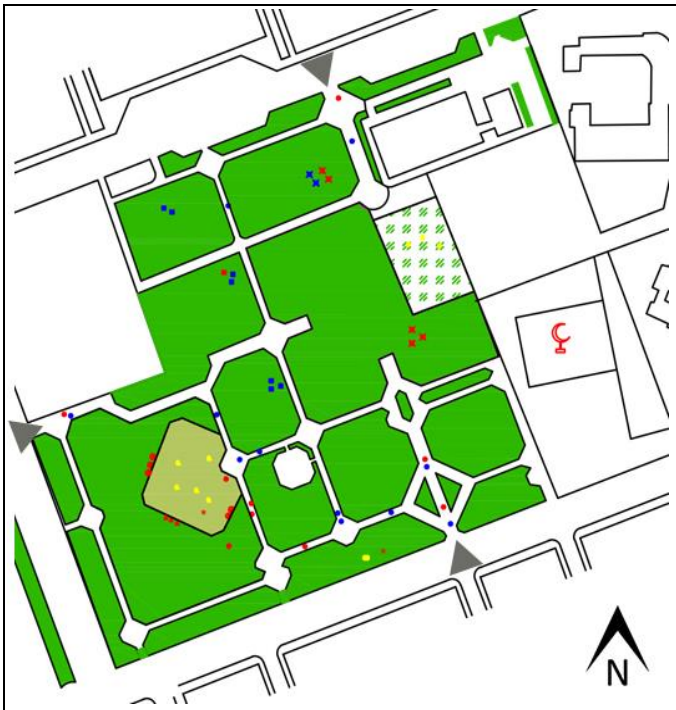
The largest group of users was observed in the evening, while in the morning and afternoon the number of users was very small. More women and children were observed than men, as shown in Tables 6.36 and 6.37. While the numbers of women and children observed using Al Andalous Park were similar, the number of men was around 30% less.

Table 6.36 The number of people entering Al Andalous Park: Weekday survey: Thursday 14 of August 2010

	Men	**Women**	**Children**
Morning	2	4	6
Afternoon	2	2	0
Evening	21	30	47

Table 6.37 The number of people entering Al Andalous Park: Weekend survey: Saturday 16 of August 2010

	Men	**Women**	**Children**
Morning	6	8	10
Afternoon	3	0	0
Evening	28	45	43

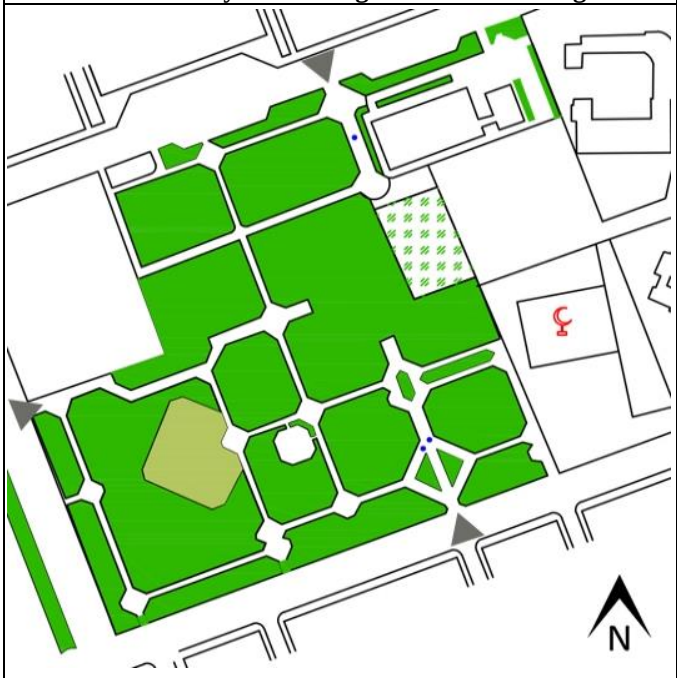


(i) Al Andalus Park

Weekend Saturday 14th of August 2010 - Morning

(a) Standing while children play on grass

(b) Sitting on grass having picnic



(ii) Al Andalus Park

Weekend Saturday 14th of August 2010 - Afternoon

(c) Walking along the pathway

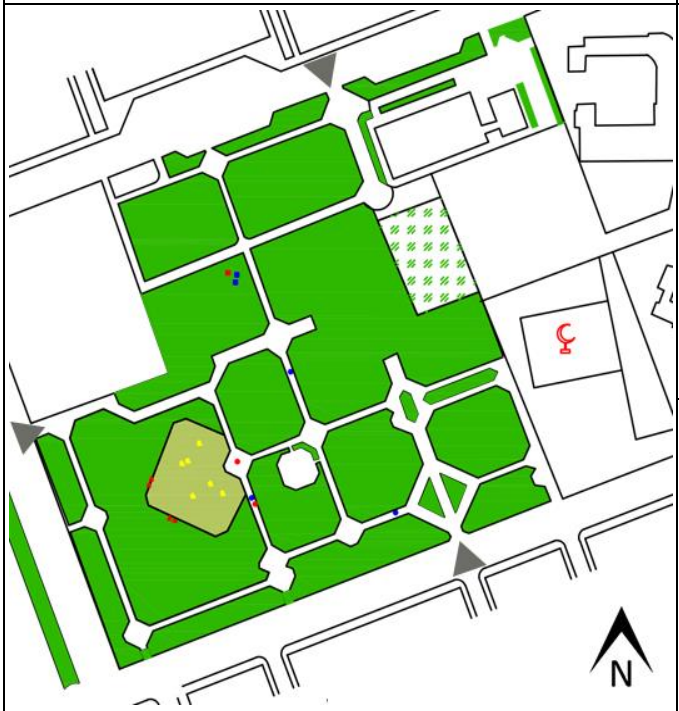
(d) Standing chatting while children play

(iii) Al Andalus Park

Weekend Saturday 14th of August 2010 - Evening

(a) Children at playground

(b) Sitting near the playground

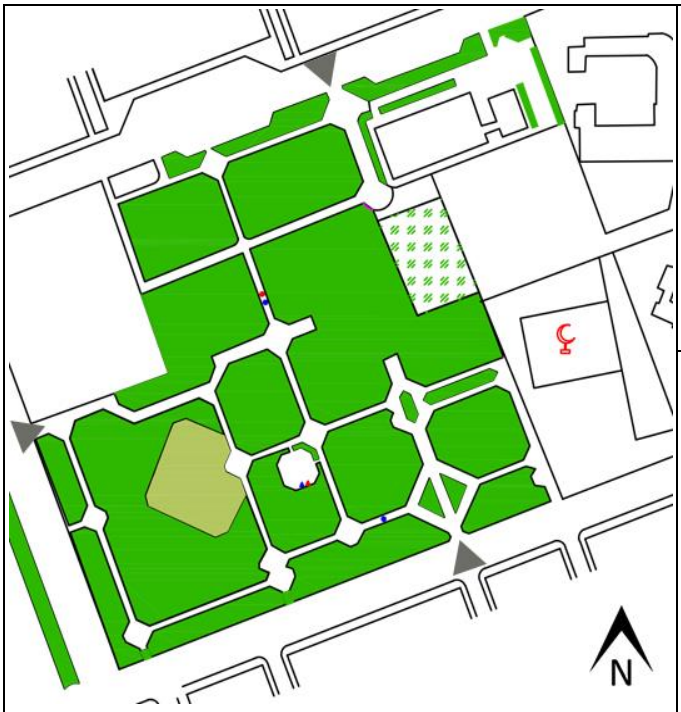


(iv) Al Andalus Park

Weekday Monday 16th of August 2010 - Morning

(c) Sitting on grass near the southern entrance

(d) Walking along from the southern entrance

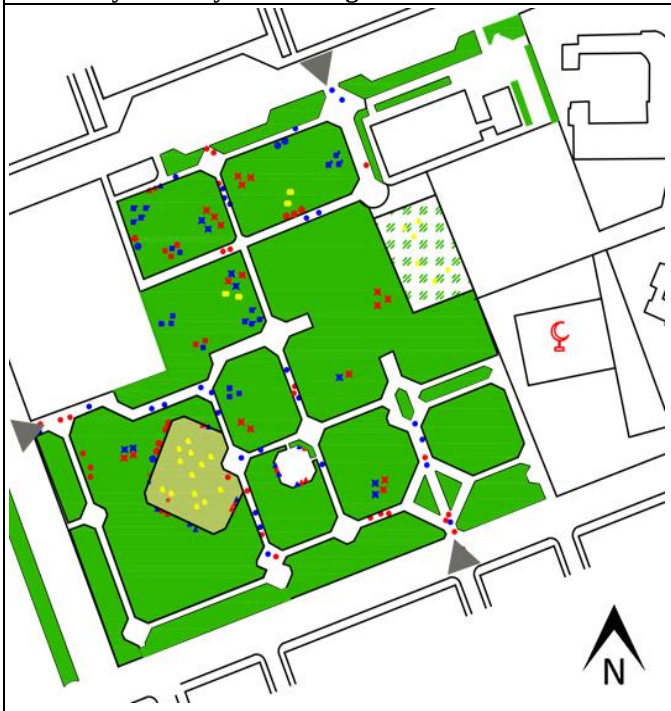


(v) Al Andalus Park

Weekday Monday 16th of August 2010 - Afternoon

(a) Children at playground

(b) Sitting near children at playground



(vi) Al Andalus Park

Weekday Monday 16th of August 2010 - Evening

(c) Walking towards the unplanned area in the middle of the park

(d) Children playing football.

Figure 6.9 Activities in Al Andalous Park during weekday and weekend summer observations

As with Al Qalaa and Um Al Hassan Parks, users were mainly sitting on the available chairs or on the grass, chatting with each other. Some groups of men were playing cards, and others were smoking the traditional hubba-bubba while sitting on the grass. These groups of men were mainly sitting at the edges of the park near the streets, while the groups of women were observed sitting towards the inner area of the park, probably for privacy reasons. In the evening some of the users (mainly women with children) were having a picnic. A significant number of families were sitting near the playground, watching their children playing. Children were playing in the playground despite the poor condition of the facilities (observed by the author). Some boys were observed playing in the football field in the eastern part of the park. A few people were standing in groups chatting, while others were walking through to find an appropriate place to sit (Figure 6.9).

Although Al Andalous Park was used by all ages and genders, unlike Um Al Hassan and Al Qalaa Parks, the dominant groups in this park were women and children, possibly because of the location of the park being in a residential area. As in the other two parks, women were participating in almost all the observed activities in the park apart from certain activities such as playing cards and smoking hubba-bubba.

Table 6.38 The intensity of activities in Al Andalous Parks in the summer survey.

Activities	Sitting on grass	Sitting on a bench	Sitting and eating	Sitting near playgrounds	Walking	Walking/ passing through	Standing with conservation	Standing and eating	Standing viewing and photographing	Smoking hubba-bubba
Al Andalous Park/ No of people involved in the activities	**65**	55	**62**	**14**	**33**	**10**	**12**	**0**	**0**	**6**

6.2.2. Winter Survey: December 2010

The observation survey took place in December; the weather was cold with the temperature ranging between 3° C minimum to 11° C maximum. It was cloudy and rainy most of the days, with a few sunny mornings. The number of users and the different activities observed in all three parks were significantly fewer than in August. The number of users was almost the same on weekdays and at weekends in both Al Qalaa and Al Andalous Park, while in Um Al Hassan Park the number in the weekend was slightly less than on weekdays.

6.2.2.a. Um Al Hassan Park

The largest number of people was observed in the morning and afternoon, with the smallest number in the evening, probably due to the cold weather. From Tables 6.39 and 6.40 it appears that the presence of men in Um Al Hassan Park is more frequent than that of women. The number of women using the park was two thirds of the number of men, while the number of children was almost twice that of the women.

Table 6.39 The number of people entering Um Al-Hassan Park: Weekday survey: Thursday 23 of December 2010

	Men	**Women**	**Children**	**Comments**
Morning	25	18	32	Cold and no rain
Afternoon	31	22	66	Cold with some rain
Evening	6	1	12	Cold and no rain

Table 6.40 The number of people entering Um Al-Hassan Park: Weekend survey: Friday 24 of December 2010

	Men	**Women**	**Children**	**Comments**
Morning	9	8	15	Cold and rain
Afternoon	15	13	20	Cold with some rain
Evening	5	1	3	Cold and rain

(i) Weekday Thursday 23rd of December 2010-Morning

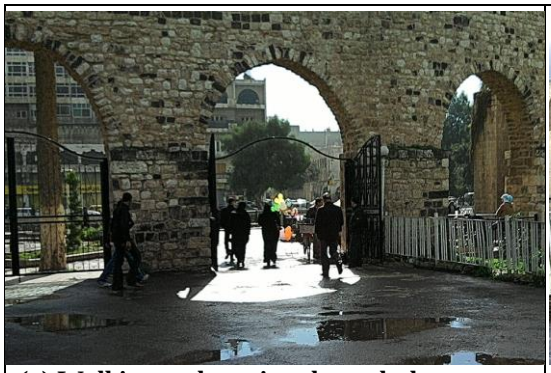
(ii) Weekday Thursday 23rd of December 2010-Afternoon

(iii) Weekday Thursday 23rd of December 2010-Evening

(iv) Weekend Friday 24th of December 2010-Morning

(v) Weekend Friday 24th of December 2010- Afternoon

(vi) Weekend Friday 24th of December 2010- Evening



(a) Walking and passing through the southren entrance

(b) Standing and photographing, north-south path nearby the river

(c) Standing viewing the Noria

(d) Standing viewing the Noria

(e) Standing viewing the Noria

(f) Sitting on a bench reading a book

(g) Sitting on a bench

(h) Walking and standing

Figure 6.10 Activities in Um Al Hassan Park during weekday and weekend winter observations

The activities observed were very limited in the winter. Some people were standing and viewing the Norias, and occasionally were taking photos. A few families with their children were observed sitting on the benches in the south area near the main entrance during the afternoon. Children were playing around them. In the morning some people were seen sitting on benches reading books; most of these were students. More than 30% of the people (men and women) observed were just passing through the park. In the evening most of the people were passing through and there was hardly any other activity. (Figure 6.10)

Table 6.41 Intensity of activities in Um Al Hassan Parks in the winter survey.

Activities	Sitting on grass	Sitting on a bench	Sitting and eating	Sitting near playgrounds	Walking	Walking/ passing through	Standing with conservation	Standing and eating	Standing viewing and photographing	Smoking hubba-bubba
Um Al Hassan Park/ No of people involved in the activities	**0**	**95**	**53**	**0**	**38**	**47**	**10**	**14**	**45**	**0**

6.2.2.b. Al Qalaa Park

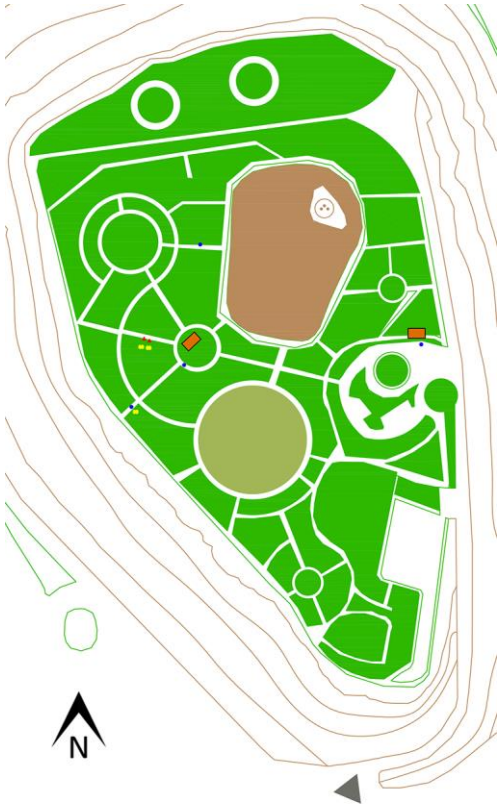
The largest group of users was recorded in the morning and afternoon, with only a few people in the evening. From Tables 6.42 and 6.43 it appears that the presence of men and women in Al Qalaa Park is almost the same, while the presence of children is more frequent than that of both men and women.

Table 6.42 The number of people entering Al Qalaa Park: Weekday survey: Wednesday 22 of December 2010

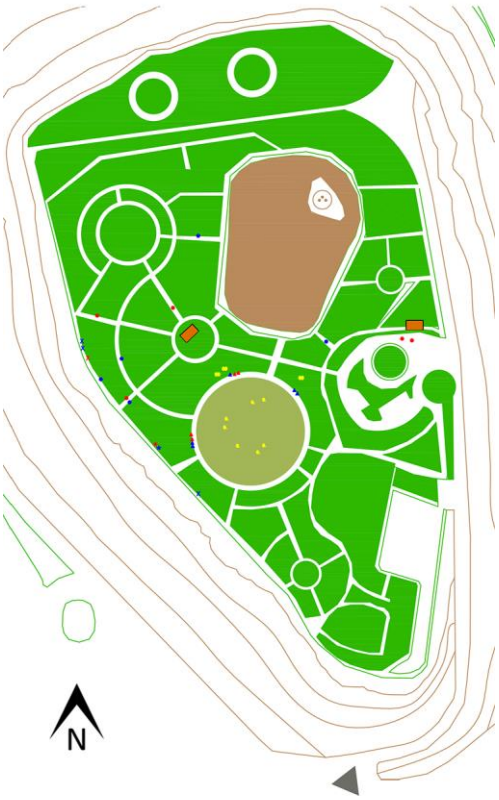
	Men	**Women**	**Children**	**Comments**
Morning	1	2	5	Cold and rain
Afternoon	5	3	12	Cold with some rain
Evening	0	1	3	Cold and no rain

Table 6.43 The number of people entering Al Qalaa Park: Weekend survey: Friday 24 of December 2010

	Men	**Women**	**Children**	**Comments**
Morning	2	0	2	Cold and rain
Afternoon	4	3	9	Cold with some rain
Evening	1	0	0	Cold and no rain



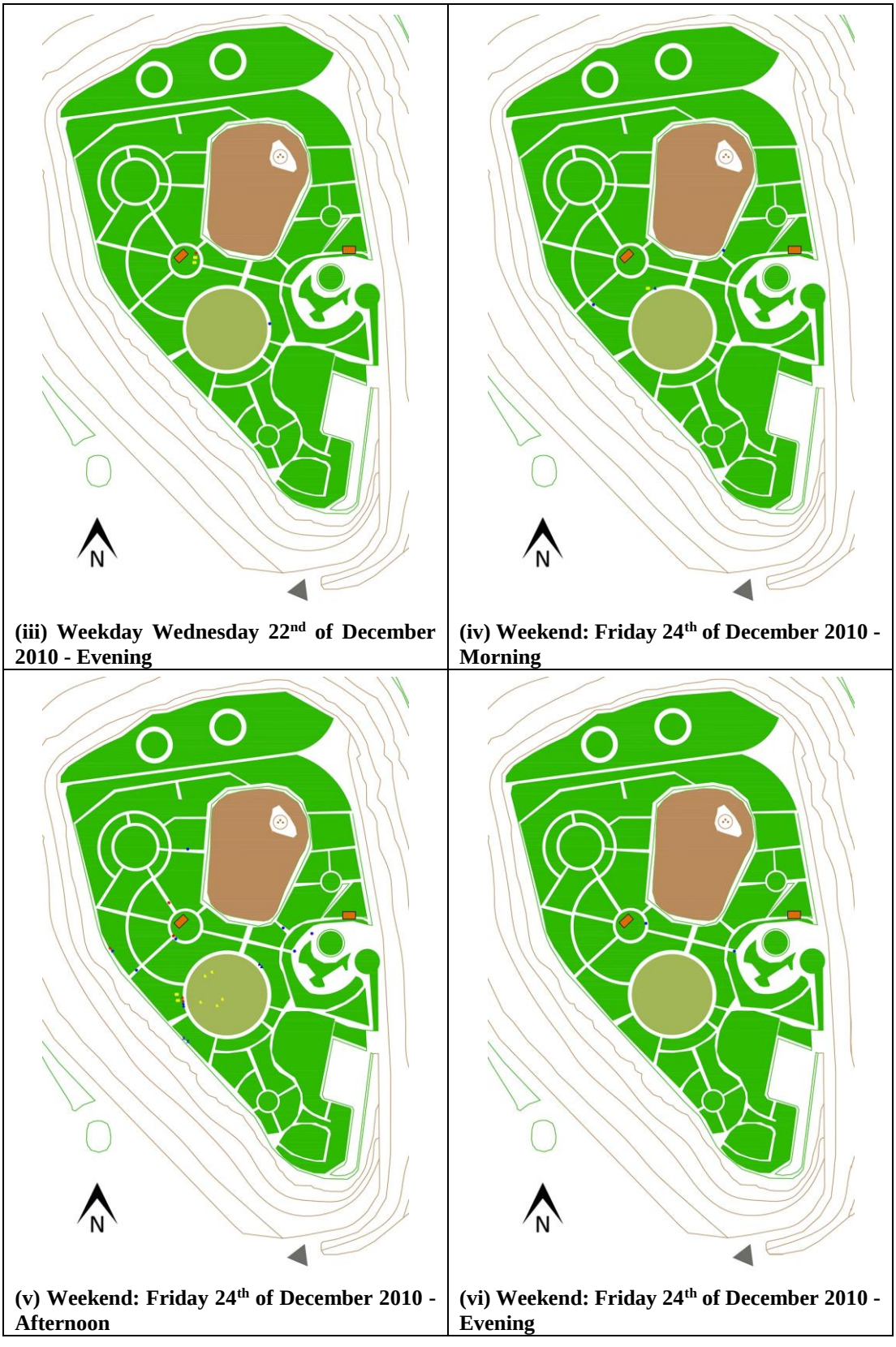
(i) Weekday Wednesday 22nd of December 2010 - Morning



(ii) Weekday Wednesday 22nd of December 2010 - Afternoon

(a) Children in the playground

(b) Walking towards the archaeological remains



(iii) Weekday Wednesday 22nd of December 2010 - Evening

(iv) Weekend: Friday 24th of December 2010 - Morning

(v) Weekend: Friday 24th of December 2010 - Afternoon

(vi) Weekend: Friday 24th of December 2010 - Evening

Figure 6.11 Activities in Al Qalaa Park during weekday and weekend winter observations

In the afternoon, a few groups of users were observed in the area facing the river, viewing and photographing the scenery. A few children with their families were observed sitting on benches, while others were playing in the playground, when it was dry. (Figure 6.11)

Table 6.44 Intensity of activities in Al Qalaa Parks in the winter survey.

Activities	Sitting on grass	Sitting on a bench	Sitting and eating	Sitting near playgrounds	Walking	Walking/ passing through	Standing with conservation	Standing and eating	Standing viewing and photographing	Smoking hubba-bubba
Al Qalaa Park/ No of people involved in the activities	**0**	**22**	**2**	**6**	**18**	**0**	**0**	**0**	**5**	**0**

6.2.2.c. Al Andalous Park

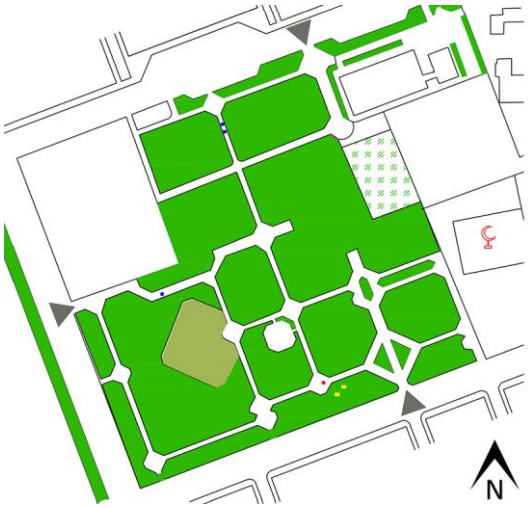
The number of the people observed in December was very small and there were almost no activities: just a few boys were walking and a few people passing through.

Table 6.45 The number of people entering Al Andalous Park: Weekday survey: Tuesday 21 of December 2010

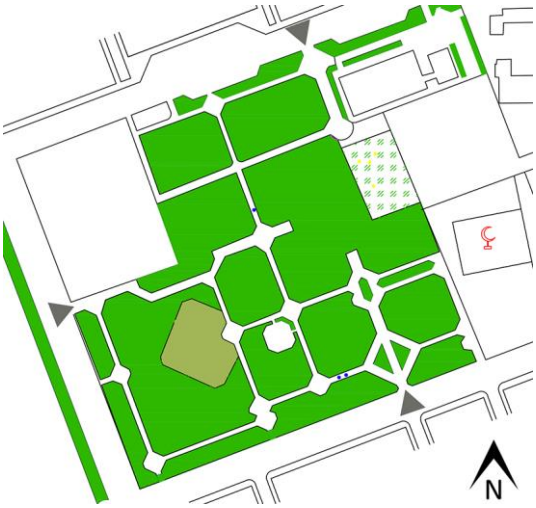
	Men	**Women**	**Children**	**Comments**
Morning	3	2	2	Cold and no rain
Afternoon	2	0	4	Cold and no rain
Evening	0	0	0	Cold and no rain

Table 6.46 The number of people entering Al Andalous Park: Weekend survey: Saturday 25 of December 2010

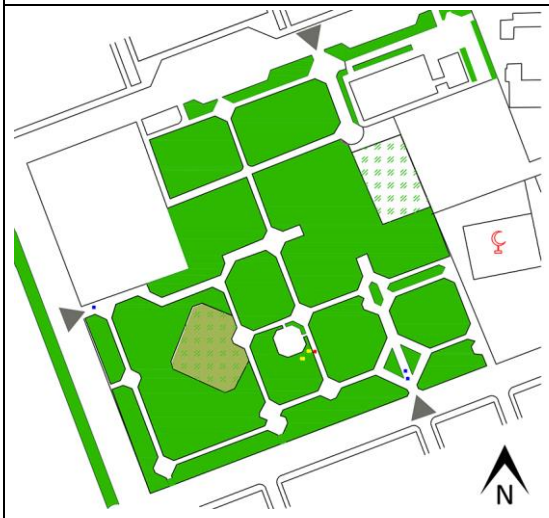
	Men	**Women**	**Children**	**Comments**
Morning	2	1	2	Cold and no rain
Afternoon	1	0	2	Cold and no rain
Evening	0	0	0	Cold and no rain



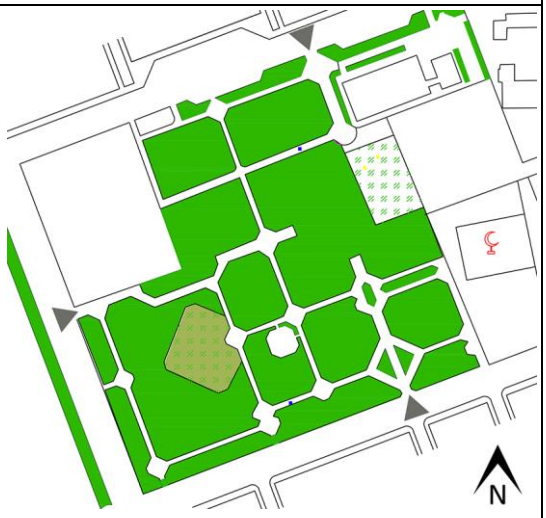
(i) Weekday Tuesday 21st of December 2010 - Morning



(ii) Weekday Tuesday 21st of December 2010 - Afternoon



(iii) Weekend Saturday 25th of December 2010 - Morning



(iv) Weekend Saturday 25th of December 2010 - Afternoon

Figure 6.12 Activities in Al Andalous Park during weekday and weekend winter observations

Table 6.47 Intensity of activities in Al Andalous Parks in the winter survey.

Activities	Sitting on grass	Sitting on a bench	Sitting and eating	Sitting near playgrounds	Walking	Walking/ passing through	Standing with conservation	Standing and eating	Standing viewing and photographing	Smoking hubba-bubba
Al Andalous Park/ No of people involved in the activities	**0**	**0**	**0**	**0**	**12**	**10**	**0**	**0**	**0**	**0**

6.2.3. Observation and Behavioural Mapping: Comparison

According to the analysis of the observation survey, the number of people using the public parks and the intensity of activities are different in winter and summer.

In winter, the activities observed in Al Qalaa and Um Al Hassan Park were almost the same as in summer time, although the number of participants was significantly smaller. However, in Um Al Hassan Park the main activity was passing through, while in Al Andalous Park there was almost no activity, just a few people passing through.

In August 2010, the largest number of people was observed in the parks in the evening, followed by the second largest group in the morning, with the least number of people observed in the afternoon. This could be related to the afternoon being the hottest time of the day in summer. There was no significant difference between weekdays and weekends, as the survey was conducted within school summer holidays. People visited Al Qalaa and Um Al Hassan Parks more than Al Andalous Park. In Al Qalaa Park there was a noticeable difference between the numbers of people visiting in the morning and evening, unlike Um Al Hassan Park where the users in morning times

were slightly fewer than in evening. This is possibly because of the location of Um Al Hassan Park next to two main roads and with three entrances and adjacent administration buildings. In other words, it is more accessible, especially compared to Al Qalaa Park, which is situated on a hill and has only one entrance.

In December 2010, the largest group of people was observed in the afternoon. The second largest group was observed in the morning, with the smallest number observed in the evening, which could be understood, as this time of the day is the coldest and darkest time in Hama winter. The number of people visiting Al Qalaa and Um Al Hassan Parks was much greater than the number in Al Andalous Park.

Although the number of men was more than the number of women in Um Al Hassan and Al Qalaa Parks, in Al Andalous Park there were more women than men. This is possibly because of the residential surroundings to this park, making it more local compared to other parks in the city centre which have more mixed use surroundings.

The findings were categorised according to the intensity of activities. In winter the intensity of activities was significantly low (See Tables 6.48 and 6.49). In the summer survey, the most frequent activity observed was sitting, while walking and standing were the other two main activities. These activities were carried out by all age and gender groups in the three parks, although some of them were more dominant in one gender group as explained below.

Sitting was the dominant activity in all three parks by all gender groups. It was an activity associated with other activities such as eating, playing cards, smoking, singing and playing drums. Users were sitting on the grass or on the available benches and chairs in the three parks.

People were using the benches along the park's main path, where there is a good view of the particularly active areas, while the least used benches were found in the quiet areas of the parks. This choice of seating places matches Gehl's finding, in which benches that provide a good view of surrounding activities are used more than benches with less or no view of others (Gehl, 1987).

There was no noticeable difference in the sitting activity pattern among the three parks; people were sitting in mixed groups of men, women and children and in groups of men or women alone. The numbers of men engaged in sitting was higher than that of women. In Al Qalaa and Al Andalous Parks the families with children chose to sit in the available spaces near the playground, while in Um Al Hassan Park children were playing around their families. Some of the activities associated with sitting were carried out only by men, such as playing cards, smoking Hubba-bubba, singing and playing drums.

Walking was the second most intense activity. Men were the dominant group in Al Qalaa Park, whereas in Um Al Hassan Park, which affords important pedestrian links between different parts of the city, more women than men were walking through it (60% of those observed) in summer evenings. Similarly, in Al Andalous Park more women than men were walking around and passing through. Walking activity was sometimes associated with eating.

Standing was associated with other activities, such as eating, chatting, and viewing and photographing. It was an activity carried out by all gender groups; however, men comprised the dominant group in almost all of the parks. In Al Qalaa and Um Al Hassan Parks, standing tended to be an activity associated with users viewing and photographing the river and the ancient Norias (Figure 6.13).

Figure 6.13 Standing activity associated with viewing and photographing, Um Al-Hassan Park

Eating appeared to be an essential activity, since most of the recorded activities, sitting, standing and walking were accompanied by consuming different kinds of food and drinks. This is typical in the culture of a park visit within Syrian society in general and Hamwi society in particular (see section 4.4.4 in Chapter 4). Whyte (1980), in his book The Social Life of Small Urban Spaces refers to the importance of eating in generating social life in public spaces.

Table 6.48 Intensity of activities in the three parks in summer

Activities	**No of People involved in the activities (August 2010)**		
	Al Qalaa Park	**Um Al Hassan Park**	**Al Andalous Park**
Sitting on grass	140	155	65
Sitting on a bench	145	160	55
Sitting and eating	353	345	62
Sitting near play grounds	40	0	14
Walking	75	140	33
Walking/ passing through	0	135	10
Standing with conversation	32	45	12
Standing and eating	35	32	0
Standing viewing and photographing	62	85	0
Smoking hubba-bubba	20	30	6

Table 6.49 Intensity of activities in the three parks in winter

Activities	**No of People involved in the activities (December 2010)**		
	Al Qalaa Park	Um Al Hassan Park	Al Andalous Park
Sitting on grass	0	0	0
Sitting on a bench	22	95	0
Sitting and eating	2	53	0
Sitting near play grounds	6	0	0
Walking	18	38	12
Walking/ passing through	0	47	10
Standing with conservation	0	10	0

Standing and eating	0	14	0
Standing viewing and photographing	5	45	0
Smoking hubba-bubba	0	0	0

6.3. Professionals' Perceptions

This section presents the perceptions of professionals regarding public open spaces in Hama. It first reports on their evaluation of the quality of the existing parks, then it examines the design considerations for new parks and the professionals' awareness of users' needs.

Semi-structured interviews (discussed in section 3.4.2) were conducted in August 2010 and March 2011 with professionals in Hama City Council (HCC) and public and private sectors in the city (see section 4.5 in Chapter 4) to investigate their perception of public open space, and examine their opinions as experts in the field, in addition to identifying any distinctions between their views and the views of the users. The questions asked aimed to encourage professionals involved in design and implementation to talk about their experiences, perceptions, and understanding of public open space qualities in general and design and maintenance considerations in particular. The professionals' responses were coded, and then the results were grouped into a series of main themes.

The professionals who participated in face-to-face interviews were representatives of Hama City Council and the public and private sector in the city. They were representatives of the Department of Urban Organization (public); Directorate of Technical Affairs (public); and Public Works Department (public); designers from the Design Department (public); the contractors and implementers and maintenance agencies (public and private). A brief summary of the positions and organizations of the 17 professionals interviewed in August 2010 is presented in Table 3.1 in Chapter 3.

6.3.1. Professionals' Perception of Parks: Evaluating the Quality

Designers in the Design Department were dissatisfied with the quality of the existing public open spaces and agreed that the existing parks are in poor condition and need improvements. They believed that most of the existing public parks were unsuccessful because they had not been implemented in accordance with the original design. In their view this issue was due to the shortage of funds and the lack of commitment to the plans by the contractors implementing the designs. One of the managers in the Technical Affairs Directorate in HCC stated "*Usually the design will be dictated by the amount of government funding, which is usually insufficient for both the creation of new parks and the maintenance of existing parks*." (Interviewee M A) However, professionals from the Public Works Department highlighted two other reasons for the unsuccessful implementation of public parks: one was the lack of site analysis by the designers, as they sometime did not visit the site, and the other reason was the lack of experience of the private contractors implementing the designs.

In terms of the quality of the existing parks, the professionals had various views, some of which were similar to each other while other views were not. Um Al Hassan Park was considered by half of the interviewed professionals as a successful public space because of its historical importance (as one of the oldest parks in the city, established in 1959), its central location in the city, and the presence of the ancient Norias and the Orontes River, which passes through its heart. Another reason was the new improvements in the park, mainly the lighting project, which had made the park safer to use. One of the designers in the public sector claimed "*it is the best among the existing ones but there is still more care to be considered in terms of maintenance and users' needs"* (Interviewee F A). However, other interviewees emphasised that the park lacked some public facilities, such as a playground, and the existing public facilities, such as the public toilets, were in poor condition.

While Al Qalaa Park seemed to be considered by the professionals as less successful than Um Al Hassan Park, it was still considered by a number of them as a successful place because of its historical importance, its dominant view over the whole city; the

presence of dense green areas that provide privacy for families and the presence of the playground. In contrast, another group of interviewees claimed that the park had poor physical quality, for example, its poor lighting quality, and an unsafe playground. They claimed that a maintenance study regarding the lighting and pathways was scheduled in the near future, but it would not be a comprehensive one, and was unlikely to fulfil the required needs of the users. "*The quality of the physical environment needs more care, the playground and green spaces need maintenance. They have a plan to improve the park put it is not a comprehensive one."* (Interviewee R A)

All the interviewees agreed that Al Andalous Park could not be considered as a successful park, for many reasons. Firstly, the design of the park was not as good as it might be; therefore, the existing physical qualities were inadequate (insufficient lighting, poor quality of the available seating places, and unsafe playground). "*It is not designed well as there are no squares and sitting places for people, no shelters from the sun and the playground is inappropriate."* (Interviewee F A). The second reason was the presence of anti-social behaviour in the park, which, in the professionals' opinion, resulted in reduced numbers of people using the park. One of the designers argued that the council is responsible for developing the park and improving its quality, thus transforming it from unutilised space into a lively, active space for users. "*The presence of security in the park would be essential for the success of the park along with a lighting study to improve the quality of the park*." (Interviewee A S) "*The most important two things for the park to be successful are the presence of a playground and toilets*." (Interviewee R A)

Al Thoura Park, the second largest park in the city, was considered as an unsuccessful park by some of the interviewees because of its location. It is disconnected from the surrounding environment (streets and residential areas) and has difficult access. Another reason for its lack of success was perceived to be that it was a neglected place, since the council has not given it the adequate attention and care. One of the managers in the Technical Affairs Directorate in HCC stated "*People do not use this space even though it's the second largest park in the city and has a view to the Orontes River and the green fields; the city council decided not to spend money on enhancing and*

developing this park and decided to improve the ones that people already use." (Interviewee M A)

There were also a few "pocket sized" parks mentioned by the interviewees, such as Nassib Alshuhadaa, Alshreea and Alkendi Parks, some of which were considered as good examples of successful places and others as unsuccessful, for various reasons.

"*Alshreea is good example because they considered the disabled people, although it is small*." (Interviewee H S) while a manager in a public department stated "*Alshreea neighbourhood is an affluent area and, as a result of this, local people do not use public spaces; they prefer to go to private ones such as cafes. It is unused although it is in the city centre and has a view as well. Another reason for its lack of popularity may be its location, segregated from the adjacent residential area*" (Interviewee Y D)

Nassib Alshuhadaa is a small park but it seems to be successful because of its location. It is located within a densely populated neighbourhood, and it is the only park in that area. However, one of the engineers in the public sector stated that "*Nassib Alshuhadaa is unsuccessful because of the poor lighting, anti-social behaviour and its location is inappropriate*." (Interviewee A S)

The overall views of the interviewed professionals indicated that, in their view, the quality of most of the parks in Hama needs improvement and they, as specialists in this field, are trying to do their best in order to provide the essential facilities that people would expect in these spaces. However, they identified some difficulties and limitations, which prevented them from properly performing their work such as shortage of funds. (See section 4.5 in Chapter 4)

The professionals showed a positive attitude towards the privatization of some parts of the public open spaces in the city, claiming that it brings positive investment in the city, since there is a problem in terms of investment and the public sector is unable to cover the whole cost of developing and maintaining the existing public spaces. Pugalis (2009) emphasizes the same finding that "[professionals] did not express any fears of the private sector controlling and commodifying urban public spaces, or indeed, detracting from public life." (p.67)

6.3.2. Design and Maintenance Considerations

One of the managers in the Technical Affairs Directorate in HCC, Y D, commented that the design criteria for parks have aesthetic, environmental, and socio-cultural dimensions. In his opinion, the socio-cultural dimension is provided by creating suitable spaces for people to use according to their culture and tradition, while the aesthetic and environmental dimensions are provided by offering pleasant green spaces with good views to the Orontes River and the Norias.

He stated that design criteria for the new parks were different from the existing ones. Newly graduated architects had new ideas and were more concerned about aesthetic values. According to one of the designers in the Design Department in HCC (R J) there is a greater sense of aesthetic and wellbeing; this is a result of globalisation and the influence of the internet with regard to new materials and new ways of implementation. One of the managers in the Technical Affairs Directorate in HCC, also stressed the importance of aesthetic aspects in designing the public open spaces. *"The aesthetics issue is the most important aspect in designing the space, as this encourages people to use the public open space."* (Interviewee M A)

Location emerged as one of the important design criteria mentioned by almost all the interviewed designers. They stated that the design and quality of a park would be different according to its location and connection to the adjacent neighbourhoods and main streets.

Designers were agreed that involving people's opinions in designing public parks would be beneficial. One of the designers, in the public sector, stated that "*it is important to get feedback from people about what they prefer and would like to see in their neighbourhoods, as there is a difference between the culture and life style from one neighbourhood to another."* (Interviewee R J) Only one designer, in the public sector, held a different point of view, as she stated that "*it is good to get people's opinions but, it is not necessary as [we as designers] have the sufficient experience to know people's needs and what they want in their spaces.*" (Interviewee F A) One of the managers in the Technical Affairs Directorate (Y D) commented that

"*unfortunately we don't have such involvement in our city at present and even in the near future, and that's due to the shortage of experienced staff*". He reported that there was a previous trial in one of the projects, which was about changing one of the roads into a pedestrian street. They conducted a survey in order to get user's feedback, but it was the only example.

The designers and those responsible for maintenance believed that they kept in mind users' needs in the park during their work and they tried to provide all the facilities that are important to the users. One of the designers in Hama City Council stated that he tried to provide safe playgrounds for children with soft materials and convenient seating places which respected privacy and culture. In addition, he referred to the pathways for walking inside the parks and public facilities such as public toilets, clean water, and good lighting.

Maintenance works were considered as an important aspect of providing comfort to users in parks. One of the maintenance agencies' representatives stated that "*the agency had recently finished projects in different locations throughout the city in order to improve its qualities, such as the lighting enhancement project in Um Al Hassan Park, and the project to repair the pathways in Al Qalaa Park*" (Interviewee M H). However, as explained in section 6.3.1 most of the interviewed professionals were dissatisfied with the results of such projects and asserted the need for a maintenance programme for the public facilities in almost all parks in the city.

6.3.3. Summary

The findings of the interviews presented in this section provide insights about professionals' perception of public open spaces in Hama and their evaluation of the quality of the parks, in addition to their understanding of the design and maintenance considerations.

Generally, existing parks in Hama were perceived by the professionals as poor quality spaces, which required improvements. However, some of the professionals considered certain parks as successful such as Um Al Hassan and Al Qalaa Parks. They perceived the privatised spaces as a good investment in the city and a potential way to improve

the quality of such spaces, which were neglected by the council because of lack of funding.

Among design considerations, location emerged as an important design criterion for a park, in the designers' views. The designers appeared to place more focus on the aesthetic issues over the functional ones. Moreover, they appreciated the importance of public participation in the design process, although they stated that it was not included in the current design process of new parks, as this is a management decision not their decision. The professionals claimed that they were aware of users' needs and asserted that they were doing their best to accommodate users' needs in their work. With regard to maintenance, it is believed that there is a need for immediate maintenance programmes for the public facilities in almost all parks in the city. However, the interviewed professionals strongly highlighted some constraints at the city administration level, notably the inadequate budgets, which limited their role.

6.4. Conclusion

This chapter presents the findings of the social study conducted in order to investigate residents' perception of the built environment and public parks in Hama and their preferences in using these spaces, users' behaviour in public parks, and finally, professionals' perception of the public open spaces in Hama city.

The findings from survey of the residents' perception illustrate that public parks are perceived as green spaces to visit as well as places for social and cultural interactions. Um al Hassan and Al Qalaa Parks emerge as the most important parks in the city for various reasons. They are perceived as places to meet, relax, enjoy nature and fresh air and spend time. Safety and security, together with comfort and relaxation are revealed as the most important qualities residents are seeking in public parks. These are directly related to the poor quality of the existing public facilities in parks.

The findings from the observation and behavioural maps show that the use of the three parks is not dissimilar to the use of space in other similar cities with similar climatic

conditions. People stand, walk, sit and eat in them at various times of the day, weather permitting. What distinguishes Al Qalaa and Um Al Hassan Parks is that standing tended to be an activity associated mainly with users as they viewed and photographed the river and the ancient Norias.

In the summer survey, the most frequently observed activity in the three parks was sitting, followed by walking and standing. Eating was seen as an essential activity in as most of the observed activities were accompanied by consumption of different kinds of food and drinks. In the winter survey, the observed activity was significantly less and the three main activities were sitting, walking and standing. The observed activities are mainly inactive or passive.

The findings from the interviews with professionals reveal that they perceived the quality of the existing parks in Hama as poor and in need of improvements. The professionals were aware of the use of public participation in the design process and acknowledged location and aesthetic issues as important design criteria. They claimed that they are aware of users' needs in the park such as safety and comfort, and believed that they accommodate these needs in their work, although they stressed some difficulties, such as insufficient budgets, which limited their performance. Despite the fact that professionals talk about awareness of users' needs, it is their thoughts about users' needs, which they are describing not the actual ones since public participation is not part of the design or maintenance process as yet.

Users' perceptions of the case study parks are confirmed by the number of people visiting the parks. In the case of Al Andalous Park, the questionnaire findings revealed that this space was viewed as extremely unimportant, and this was reflected in the observations revealing low number of users. In contrast, Al Qalaa and Al Hassan Parks were both mentioned positively by almost half of the respondents and this perception was confirmed by the greater numbers of people using them. Arguably, both Al Qalaa and Um Al Hassan Parks, with their natural (Orontes River) and historic (the Norias) features, are significant places in people's minds because they define the identity of Hama. An additional confirmation of the relationship between perception and

behaviour is illustrated in terms of respondents' views of safety. The questionnaire results show that they were very concerned about safety issues.

When considering the views of the users and professionals, there is a divergence in their respective appreciation of the qualities of the public open spaces. The findings regarding recently completed projects illustrate that, despite improvements and maintenance introduced by the professionals, the users and also some professionals remained dissatisfied with the results (see sections 6.1.4, 6.1.5, 6.3.1 and 6.3.2). Secondly, there is a variation in attitudes to the privatization of public space. Whereas the professionals were unanimously in favour of this change, the users were divided into those who supported it because it satisfied their needs and those who opposed it because it prevented them from using the space as they chose and also because it was too expensive for them to afford. Nevertheless, the professionals' evaluation of the qualities of the parks was similar to the users. Both groups believed that the public facilities are of poor quality and require immediate improvement.

In the next chapter, the findings from the social and spatial investigations are discussed and used to evaluate the qualities of the case studies and the processes used to design and maintain them.

Chapter 7 - Discussion

7.1. Introduction

The previous two chapters discussed the spatial and social findings from the empirical work carried out in Hama. This chapter links these findings[43], along with the findings of the review of the governance process of public open spaces in Hama (discussed in Chapter 4), in order to evaluate the quality of parks in the city. Firstly, the chapter evaluates the quality of the case study parks, then it assesses the responsibilities of the city for the design, construction and maintenance process. Finally, it reviews the key findings and suggests a set of recommendations for improvements to the parks and to the city level processes.

7.2. Evaluation of the Qualities of the Case Study Parks

This section first discusses the social and spatial findings for the three selected parks, Al Qalaa, Um Al Hassan and Al Andalous Park, which were revealed through the empirical work reported in Chapters 5 and 6. It then discusses the needs and qualities, which were expressed by residents of Hama in relation to their parks (Section 6.1 in Chapter 6), and professionals' awareness of these needs. Finally, it evaluates the quality of the parks, according to the set of principles for high quality public open space developed in Chapter 2 (Figure 2.4).

7.2.1. Summary of the Findings from the Social and Spatial Evaluations of Each Park

7.2.1.a. Al Qalaa Park

Al Qalaa Park is located at the site of the ancient Hama castle, which was designated as a park in 1970. The location of the park, standing alone on the hill provides a

[43] Findings from the research are discussed in Alsumsam and Forsyth (2011a, 2011b)

panoramic view of the Orontes River, the Norias and the whole city. The park is bounded by the remaining part of the old city and the Orontes River. It is surrounded by high to medium density mixed uses areas, and the main land uses are residential and commercial.

The park is considered by a number of the interviewed professionals as a successful place because of its historical importance, its panoramic view, the presence of dense green areas providing privacy for families and the presence of the playground. Conversely, some of the professionals were extremely unhappy with the quality of the park, claiming that it had poor physical qualities such as its inadequate lighting and an unsafe playground, as well as inappropriate public facilities, which were in need of immediate maintenance. They stated that there would be a maintenance study addressing the lighting and pathways in the near future, but it was not a comprehensive one, and was unlikely to fulfil users' needs.

According to the questionnaire survey findings, the park is perceived by the residents as one of the most important parks in the city because of its historical significance and its location providing a vista of the whole city, the Orontes River and the Norias. Moreover, they mention the fresh air and natural aesthetic values. This perception is confirmed by the large number of people observed to be using the park in the summer survey. The number of users in the morning hours was significantly less than in evening, while in the winter survey the largest number of users was observed in the afternoon.

The findings of the axial map analysis present the park as located in an area in Hama with a medium to low level of integration, both locally and globally. This result is predictable because it is the site of the ancient castle with only one access, and because of the poor permeability in the layout of the adjacent roads. The presence of the river surrounding the park separates it from Al Hadir District, to which it is connected by three bridges, two of which are ancient Roman bridges. The analysis of the axial map inside the park reveals that the middle-western area of the park is the most integrated one, comprising the playground and a café. The north eastern and western parts are

classified as areas with medium levels of integration, while the southern part of the park has the lowest integration values (see Figure 5.5).

Observation of the way that the park is used led to a different set of findings from those that would be expected from the global and local space syntax analyses. The park is well used, even though it is poorly connected to its surroundings locally and globally. This result contrasts with Hillier's idea that in order to be liveable and have a good level of social life a space has to be well integrated, with high accessibility, however, he does acknowledge that the presence of attractors can have a multiplier effect on the use and function of a space. (Hillier, 1996).

Nevertheless, the findings of the configuration characteristics inside the park (see Figure 5.7) show some similarities with and differences to the results of the summer observation surveys. As expected the middle-western area was found to be well-used throughout the day (morning, mid-day, and evening), whereas the southern part of the park was poorly used during the day. In contrast, the north part of the park was found to be hardly used although it was classified as having a medium level of integration. This finding could be because the north part of the park is densely wooded area and users do not feel safe, therefore, as Gehl (2010) argues, the low numbers of people are not attracting other people to use the area, despite the fact that the pathways in this part are connected with the other parts of the park. Moreover, the eastern and western parts of the park were found to be well used although they were also classified as having only medium levels of integration. The eastern and western parts are the two long edges of the park in which users have a good view of the surrounding landscape and the Orontes River along with the ancient Norias, which may explain this finding.

The main activity observed was sitting: users were sitting in groups at the northern and southern edges of the park facing the Orontes River. Families were sitting on the available seating places around the playground, watching their children playing. Sitting activity[44] was mostly accompanied by eating and drinking. The second

[44] The observed sitting activities in the three case study parks were mostly associated with eating and drinking.

observed activity was walking: users were mainly walking along by the archaeological remains in the middle of the park, and along the pathway at the western edge of the park. Users were also observed standing at the western and eastern edges of the park, viewing and photographing the panoramic view of the river and Norias. In the winter survey, the activities observed in Al Qalaa Park were almost the same as in the summer time, although the number of participants was significantly smaller.

7.2.1.b. Um Al Hassan Park

Um Al Hassan Park is located in a strategic location in Hama city centre, on the north-eastern bank of the Orontes River in Al Hadie District. Jisr Al Sarayah, the main pedestrian Roman bridge in the city since 1959, connects the main entrance of the park with Al Souk District. The park is bordered by the Orontes River to the south and west, and is situated at one of the busiest vehicular and pedestrian intersections in the city centre. It is surrounded by several important and historical buildings along with the main square in the city, Sahat Al Assi. The park is one of the oldest parks in the city: it was established by the municipality of Hama at the end of 1959. Um Al Hassan Park is surrounded by a high-density mixed-use area, in which commercial use is the dominant land use. The heights of the surrounding buildings range between 3-10 storeys. It is an accessible park to users, as it has three entrances on two main roads in the city centre.

The park is considered as a successful place by half of the interviewed professionals, because of its historical importance, its central location and the presence of the ancient Norias and the Orontes River. An additional reason mentioned in regard to its success was the new improvement in the park, the lighting project completed in 2010, which according to the professionals, made the park safer to use. Nevertheless, most of the interviewed professionals asserted that the park had a serious problem due to the amount and quality of the public facilities.

It is perceived as one of the most important parks in the city by most of the residents, again because of its central location, historical importance and the presence of Al Jisryah Noria at the park entrance and Al Mamoryah Noria on the west bank of the river, all of which give the park a unique meaning and identity.

As expected, the analysis of the axial line maps shows that the park is a well-integrated (accessible) space within the city, both locally and globally. It is surrounded by the most globally integrated roads, while according to the local integration map the park is surrounded by a highly integrated road to the east and medium level locally integrated road on the southern edge. The analysis of the axial map inside the park revealed that the most integrated area of the park is the western part, which is bounded by the Orontes River and the least integrated area of the park is the northern part. The main pathway in the park, which runs from south to north along the river, is the most integrated one, while the two pathways, which run between the eastern and southern entrances of the park, have medium levels of integration. (See Figure 5.6)

The results of the spatial analyses are confirmed by the findings from the observation surveys. The park is a well-integrated space in the city used by a large number of people. In the summer survey, the number of users in the morning hours was slightly less than in the evening, while in winter survey the largest number of users was observed in the morning and afternoon. During the summer survey, the western part was well used, mainly in the morning and evening, while the northern part of the park was hardly used. Moreover, the main pathway in the park, running from south to north beside the river was observed as the busiest one. Nevertheless, the southern part of the park, which is bounded by the river was observed as a vibrant area which was well used, despite its classification as an area with medium to low integration level. This finding could be because the river and the Norias are attractive features inviting more users to this part of the park. In the winter survey, although the use of the park was noticeably less intense than in the summer survey, the same parts and pathways in the park were found to be well-used.

In the summer survey, the main activities observed were users standing at the main entrance, viewing and photographing Al Jisryah and Al Mamoryah Noria, then walking along the path running adjacent to the river. Other activities observed were sitting on the grass having picnics, walking along, chatting or passing through. Some

families with children were observed to be spending most of the time at the playground[45]. In the winter survey, the main activity observed was passing through.

7.2.1.c. Al Andalous Park

Al Andalous Park is located in a modern residential area out of the city centre and away from the Orontes River. The park was designed and established in the mid-1980s. It is surrounded by medium density land use, mainly residential. The heights of the surrounding buildings range between 2-4 storeys. The park has three entrances on the northern, southern and western streets.

The entire group of interviewed professionals agreed that the park could not be considered as a successful place, because of its lack of planned grassy areas and pathways leading to appropriate sitting places and the poor quality of the existing physical facilities, such as lighting, seating places, and the playground. The professionals mentioned the presence of anti-social behaviour[46], which in their opinion resulted in reducing the numbers of people using the park. The park is perceived by the residents as an extremely unimportant space, mainly because of its location, architectural design, and the lack of public facilities. The finding is confirmed by the low numbers of people observed using the park.

The findings of the axial map analysis show that the park is surrounded by streets with a medium level of integration, according to the global integration map, while it is surrounded by the most locally integrated roads, according to the local integration map. These findings and the street layout around the park being highly permeable means that the park is a very accessible space. The analysis of the axial map inside the park reveals that the inner strip of the park, which connects the north and south entrances is a highly integrated area; the south part of the park, mainly near the park entrance, also has high integration values. The middle area to the south west part of the park, where

[45] Um Al Hassan Park does not have a public playground; however the northern east corner of the park has a privately owned playground.
[46] In the context of Hama city, anti-social behaviour is mainly related to women being harassed or molested, and to vandalism.

the playground exists, has medium integration values, while the northern part appears to have the lowest integration values. (See Figure 5.8)

As in the case of Al Qalaa Park, the findings of the observation surveys were different to those that would be expected from the global and local space syntax analyses. The park was not found to be well-used, although it was well connected to its surroundings and an accessible space, locally and globally. The findings of the axial map analysis inside the park shows similarities and differences with the summer observation survey results. The middle area around the playground was used mainly in the morning and evening times, and the southern area, near the southern entrance, was also used by some of the users. However, the highly integrated strip running from north to south in the inner part of the park was poorly used, possibly because this area has been left unplanned. Moreover, the northern part was found to be used mainly in the evening, although it is classified as an area with low integration values, and this finding could be because this part has acceptable level of planted areas and seating places for the users.

In the summer survey, the main observed activity was sitting: users were sitting on the chairs or on the grass, and some families were sitting on the available chairs adjacent to the playground, watching their children. In the winter survey there was almost no activity observed, just a few people passing through.

7.2.2. Residents' Expectations

The findings of the questionnaire indicated residents' needs and the qualities they expected in parks in Hama. The respondents reported that the most important quality they sought was related to safety and security, an essential stage in Lang's hierarchy of basic human needs (Lang, 1994); the other important qualities they expected were related to comfort and relaxation, which matched those cited by Carr et al. (1992) discussed in section 2.3.4 in Chapter 2. Safety and security needs in parks are related to personal safety, health and wellbeing needs and security from threats and social problems, while the need for comfort is related to both psychological and physical

comfort. The sense of psychological comfort, for instance enjoying fresh air and a quiet atmosphere, is a precondition for people to relax.

The need for a clean environment in the parks was essential to all the respondents, as they reported that they hoped to enjoy pleasant spaces with a high standard of cleanness, and in a comfortable environment. The lack of public facilities and the poor quality of the existing ones, such as hygienic public toilets, adequate seating places, sufficient lighting and safe playgrounds, were raised as issues and high priority requirements for the residents when in the parks. Poor maintenance in parks was also an important concern with regard to their safety and comfort needs. For example, the materials used to maintain a playground were hard materials and inappropriate and unsafe for children to use, and the lighting system in Al Andalous Park was regarded as still not meeting residents' expectations. Moreover, the respondents reported their concern about climatic considerations, for instance the need for convenient seating places, which are shaded from the sun in summer times. The need for consideration of aesthetics and natural values in parks was reported by the residents as well; they claimed that the presence of such values would provide attractive places which are visually appealing. Finally, most of the residents linked feeling unsafe in parks to anti-social behaviour, they claimed that this issue is one of the reasons they do not use the parks regularly.

In addition, residents reported that they would prefer to have some activities in the parks, which they used to have formerly, such as recreational activities and activities related to their cultural heritage. For example, they mentioned swimming and boat trips on the Orontes River, which would offer entertainment for the parks' visitors, provision of local urban farms in the parks, and maintaining certain historical elements, such as the water mills on the river, Tawahin[47], which would add attractive views and encourage visitors.

[47] These historical mills go back to the 19th century, which used the Orontes River water to run them. Later in 1940s some of them used as swimming pools after they lost their importance and function as mills.

The residents in Hama showed concern about the decrease in the areas of parks to the benefits of other facilities, they reported that it was an issue which contrasted with their own expectations about how they would use these areas in the parks. They mentioned two reasons for this concern: the first reason they cited was that the council was changing the land use of parts of some parks into different uses, such as administrative services, private clubs, religious places, and parking spaces. The second reason reported by the residents was privatisation of public open spaces; however, they were divided into those who supported it because it satisfied their needs and those who opposed it because it prevented them from using the public open space and it became unaffordable for them.

7.2.3. Professionals' awareness of users' needs

The professionals claimed that they were aware of users' needs and they were trying to provide all the important facilities in the parks that they believed are essential to the users, for example, providing safe playgrounds with soft materials; convenient seating places which respect privacy and culture; pathways for walking; and public facilities such as toilets, clean water, and good lighting.

Despite that the residents, who completed the questionnaire survey, stated that the parks were designed with low consideration of safety, comfort and climate. For instance, they claimed that the seating places were provided neither in appropriate locations nor shaded from the sun in summer times. Moreover, the residents considered the upgrading projects as an important aspect of providing safety and comfort needs in the parks; however, the quality of the delivered projects was not at the level of their expectations.

The professionals asserted that "as specialists in this field" they were doing their best in order to provide the essential facilities for people in these spaces, which meet their needs. Nevertheless, they strongly highlighted some limitations at the city level, which constrained their role. These limitations are discussed in section 7.3.

7.2.4. Case Studies: Quality of Parks

The quality of the three parks is evaluated according to the set of principles of high quality public open spaces developed in Chapter 2 (Figure 2.4). The three selected parks could not be considered as having high quality, although there were positive qualities in these parks. The three parks appeared to have a serious problem in the provision and quality of public facilities such as public toilets and adequate seating places which are clean and tidy. Other problems, such as safety and poor maintenance, emerged as basic problems which could not be dealt with at the park level. None of the three parks were considered by the residents as safe places, and this finding is confirmed by the results of a previous study done by the researcher (Alsumsam, Forsyth, 2011b) about the effects of the physical environment of the three case study parks on user's feeling of safety, which revealed that none of the three selected parks were considered as safe places.

Al Qalaa Park, appeared to be a well-used and active place, according to the high level of activities observed which are supported by attractive surrounding land uses. It could be considered as an inclusive space, offering its users a good level of social interaction. However, the park was found to be poorly connected to its surroundings. Nevertheless, the park was found to have the image of a landmark, being an important park in the city with special identity, a distinctive space reinforcing existing character and history, and providing a good level of psychological comfort.

Um Al Hassan Park, predictably, appeared as a well-integrated space (accessible space) in the city, at the same time as being an active and well-used space according to the large number of people and good quality of activities observed in the park and to the attractive character of the surrounding land uses. The users had a good level of social interaction. Similarly to Al Qalaa Park, the park was regarded as a distinctive space having its own image and identity and it appeared to offer its users an acceptable level of psychological comfort.

Al Andalous Park, surprisingly, emerged as an inactive space, with a low level of activities and uses in the park and its immediate surroundings, despite being a high- to

medium-integrated space (an accessible place) in Hama. The park was not successful or comfortable for its users, there was a low level of social interaction due to a lack of diversity of opportunity in recreational activities, which might encourage active engagement among its users.

7.3. The City's Responsibilities in Providing and Managing Parks

Some of the problems identified through the evaluation of the quality of the case studies cannot be dealt at the level of the individual parks, but need to be tackled at the city level. It is the responsibility of the local authority in Hama to help in resolving these problems. This section discusses the city's responsibilities for the design, construction and maintenance of parks and identifies the issues raised during the analysis of these processes.

7.3.1. Issues identified within the process analysis

The review of the provision and maintenance process, discussed in Chapter 4, revealed that at the city level the main actors involved in this process were the public authorities; however, the private sector was also involved (explained in section 4.5.1). At the local level, the only involvement of the residents in the process was through the maintenance process, in which they had the right to complain about certain problems in their spaces. Therefore, the local authority had the leading role in the provision and management and maintenance processes of public open spaces, while the residents were only able to react to the maintenance process.

The analysis of the process, provided an understanding of how the actors were operating within the process and disclosed important issues. These are centralized decision-making, poor capacity (in terms of finance and qualified teams), and limited public participation (residents only being able to react to certain problems).

The central problem identified by the professionals affecting the provision and maintenance process was the financial limitations, which was reported by the

professionals as the main reason for delaying projects until sufficient funds were available. This delay, in turn, caused disappointment to the local residents. The conflict between different directorates in Hama City Council and the executing agencies involved in the process was identified as an additional important issue. Problems highlighted by representatives of different directorates included:

- The new design and maintenance plans lack a comprehensive analysis especially with respect to the context of the proposed sites and public participation.

- There is an inadequate level of qualification and training of the designers, supervision team, and contractors.

- Poor contract management: incomplete contracts and works; lack of supervision of the implementation process; and poor payment control.

The designers in the Technical Affairs Directorate in HCC claimed that the supervisions team were not supervising the implementation process properly, therefore the final projects were not executed to the intended designs. Moreover, the designers stated that the contractors were poorly qualified and did not implement the design correctly.

The professionals in the Public Works Directorate in HCC responsible for site supervision, emphasised that the projects were not based on a comprehensive analysis by the designers prior to the design stage, consequently, unforeseen issues emerged during the implementation process. In addition, the supervision professionals claimed some of the incomplete contracts were a result of poor management. Finally, they claimed that the poor execution of the projects was because of the lack of experience of the contractors.

Therefore, the problem is about certain responsibilities, which are not fulfilled properly: the responsibility of the supervising professionals to ensure that the work is executed to the design, and the responsibility of the designers to ensure that the design is based on a comprehensive analysis. However, it appears that both the designers and the contract management teams have some level of culpability, which is compounded by them blaming each other.

From the findings mentioned above, the problems in the process of project delivery seems to raise from a number of factors, which contributed to the final product not being at a satisfactory level in relation to users' expectations.

7.4. Recommendations for Improvements

The previous two sections presented an evaluation of the quality of the case studies and the process of the provision and management of public open spaces in Hama. The findings of the parks' quality evaluation, according to the criteria from literature review, reveal that none of the three parks could be considered as a high quality space, therefore the quality in these parks could and should be enhanced. However, there are positive qualities, which must be maintained. The main finding from the examination of the process was that the final delivery of the development projects, for new and existing parks, did not appear to be at a satisfactory level in relation to users' expectations. The evaluation leads to some key recommendations.

At the park level, this set of recommendations is put forward to enhance the social and spatial qualities of parks in Hama, and to ensure the provision of physical and psychological comfort in the parks. The recommendations are categorised according to the qualities of public open space, (physical, social, functional and perceptual) discussed in the literature review.

Physical qualities:

- Ensure the provision of high quality public facilities, which are essential for all users, such as public toilets, adequate seating places, and playgrounds, which are clean and tidy.
- Provide parks within integrated and accessible areas in the urban fabric, which are walkable, easy to get to and move around in.
- For new parks, attempt to create as much mixed uses as possible in the immediate surroundings, and for existing parks when the opportunity arises try to bring in uses which support the activity in the parks.

Social and functional qualities:

- Ensure the provision of recreational and leisure activities in parks, which enhance social interaction. (Gehl, 2010)
- Provide inclusive spaces, which are welcoming and free to all users and encourage engagement in public life. (Carmona et al., 2008)
- Ensure the provision of well-used and thriving parks.
- Enhance safety and security in the parks, by ensuring low anti-social behaviour and high activity areas, which result in good self-surveillance.

Perceptual qualities:

- Enhance the identity and image of each park, which would help in creating distinctive places with identifiable character. (Lynch, 1960).
- Take advantage of the natural environment to achieve attractive and visually pleasing spaces.
- Ensure the local cultural values and the historical elements within the parks and their surroundings are respected.
- Enhance safety and security in the parks.

At the city level, a set of recommendations is suggested to enhance the process, and therefore to improve the quality of public open spaces in Hama. The recommendations

are categorised and ordered according to ease of achievement to resolve the identified problems in the process; hence, the overriding recommendation is the establishment of training programs. This is followed by recommendations in relation to the comprehensive nature of the analysis and design process; recommendations for enhancing contract management; and finally recommendations for funding resources.

Training and qualifications programme:

- Hama City Council establish a training programme for the designers, contract management team and contractors; to enhance their qualifications and therefore, to ensure a high standard of development project delivery which satisfies residents' expectations.

Design implementation and maintenance:

- Ensure the design process is based on comprehensive analysis.
- Ensure regular and high quality maintenance.
- Enhance public participation in the process, to ensure residents' engagement in the design and maintenance of their spaces.

Contract management:

- Ensure signing of completed contracts with the agreed contractors, to avoid interruptions during the implementation process.
- Strengthening the role of the supervision team to ensure the final project is completed as designed.
- Ensure the provision of a functioning payment control system.

Funding:

- Projects should only start when all funding is in place or guaranteed to be in place.

These recommendations could provide the Hama City Council with a starting point for enhancing existing open spaces and ensuring an improved quality for the development of future parks and other public open spaces.

7.5. Conclusion

This chapter has synthesised and discussed the key findings from the spatial and social studies, at two levels: Hama city as a whole and three selected case studies. It first evaluates the quality of the case study parks according to the principles for high quality public open space, as developed in Chapter 2. The city's responsibilities for the provision and management of public open spaces in Hama are then evaluated. Finally a list of recommendations/suggestions is provided for improving the quality of parks in Hama.

One of the more important findings to emerge from the evaluation at the city level is that there is a need for a participatory process which includes designers, users, contract mangers and contractors implementing the designs to ensure that the final delivery of new parks and the development of the existing ones meet the users' expectations. While the finding from the evaluation at the parks level revels that the three parks could not be considered as having high quality, therefore their qualities should be enhanced.

The recommendations are set at two levels; at the city level: in which they are ordered in terms of ease of achievement; and at the parks level: where they are categorised according to the physical, social, functional, and perceptual qualities of public open spaces. The overriding recommendation at the city level is the provision of training programs by Hama City Council which should ensure that the delivery of the final product satisfy residents' needs and expectation. While the essential recommendation for the improvement at the park level is mainly to ensure the provision of good quality public facilities which meet residents' needs in the parks. The identified recommendations could provide a basis for improving the quality of existing and new parks and other public open spaces in Hama.

Chapter 8 - Conclusion

8.1. Introduction

The overall aim of the research is to investigate the use of public open spaces in Hama, Syria with the intention of improving the quality of life in the city through improving the quality of its spaces, and to provide more opportunity for people to engage in these spaces: in other words, to provide liveable spaces.

This chapter presents the conclusions reached by this thesis, and it does so by firstly, reviewing the research, then discussing how and whether the research objectives have been achieved before considering the appropriateness of the methodology for the tasks undertaken, finally some qualifications are highlighted before opportunities for further research are identified.

8.2. Summary of the Research

Literature Review

Chapter 2 reviews and discusses the literature on the concept and definitions of public open space and its importance; the qualities of public open space; and the way to improve these qualities. The reviewed literature reveals that the concept of public open space has multi-functional aspects, and that they are made up of physical, social, perceptual and functional qualities. These qualities are perceived as interlinked entities that allow an understanding of the physical and spatial characteristics of public open spaces and their impact on people's perception of and behaviour in these spaces.

The literature suggests a set of principles and qualities, which should be considered for providing high quality public open space. It was found that improving the quality of public open spaces requires a comprehensive analysis of these spaces therefore, the literature review is concluded by the development of a strategy, which would allow

consideration of the wide range of influences which affect the qualities of public open space.

Methodology

The research methodology developed to respond to the research objectives and the findings of the literature review is provided in Chapter 3. The chapter describes the strategy of the methodology, the social spatial approach that underpins the research, then explains the case study research method applied in this research that involved using both qualitative and quantitative techniques. Three case study parks were selected in order to investigate the social and spatial aspects of public open spaces in Hama. Finally, the chapter discusses the techniques used, both field-work and desk studies. These techniques included: a questionnaire survey with residents in Hama; observation and behavioural mapping in the parks; semi-structured interviews with professionals involved in the design and management process; land use and urban form surveys; space syntax applied at micro and macro scale; and a desk-top study of documents.

City Context

Chapter 4, Hama city and its context, reviews both the product and process of public open spaces in Hama. It provides a general overview of the context of Hama and examines the urban development and the evolution of public open spaces, in order to understand the changes in their nature and function. Then the chapter provides an overview of the governance process of the provision and management of public open spaces in the city, in order to understand the various actors and rules, which control this process.

The overview of urban development covered four of the historical periods that had contributed to the formation of the urban character of the old settlement of Hama and its public spaces. An analysis reveals that currently there is a decline in the use of the public open spaces in Hama, due to a variety of reasons discussed in later chapters. The review of the governance process of public open spaces illustrates that the public authorities were the main actors involved in this process, and discloses that the final

delivery of the product, both in terms of the provision and maintenance, was not up to the standard expected by the users.

This chapter, through understanding the evolution of the public open spaces, provides a good basis for understanding how people perceived these spaces, and how they used them (Chapter 6). Moreover, it enhances the understanding of the spatial structure of the current public open spaces (Chapter 5). In addition, through reviewing the process of delivery of public open spaces, the chapter helps in understanding the professionals' perceptions regarding public open spaces in Hama (Chapter 6)

Spatial Study

Chapter 5 discusses the findings of the spatial study, which was conducted in order to understand the physical and spatial structure of Hama and the context of the three case studies. The findings from the land use survey, at the city level, illustrate that land use patterns in Hama were clearly affected by its topology, being divided by the Orontes River into two main districts. While the global integration map of Hama supports the distribution of land use by illustrating that the north- south axis is the most integrated core.

At level of the case studies, the findings from the land use and urban form surveys show that Um Al Hassan Park is surrounded by a high density mixed use area in which commercial use (office and retail) is dominant; Al Qalaa Park is bounded by high to medium density mixed uses areas, mainly residential and commercial (retail); and Al Andalous Park is surrounded by medium density land use, mainly residential. The integration values of the road networks around the three parks showed that Um Al Hassan Park had high to medium levels of integration (accessible space), Al Qalaa Park had low levels of integration, and Al Andalous Park had a high level of integration (accessible space). The result from the axial map analysis inside the parks highlighted the most integrated and most segregated areas.

Social Study

The social study was conducted in order to investigate residents' perception of the built environment and public parks in Hama and their preferences when using these spaces, users' behaviour in public parks, and professionals' perception of the public open spaces in Hama.

The findings from the survey of the residents is that the public parks were perceived as green spaces to visit as well as places for social and cultural interactions. Um al Hassan and Al Qalaa Parks emerged as the most important parks in the city. They were perceived as places to meet, relax, enjoy nature and fresh air and spend time. Safety and security, together with comfort and relaxation emerged as the most important qualities sought in public parks. This appeared to be in response to the poor quality of the existing public facilities in parks.

The observation and behavioural maps revealed that the use of the three parks is not dissimilar to the use of space in other similar cities with similar climatic conditions. The observed activities were mainly inactive or passive activities. Interviews with professionals revealed that they mainly perceived the quality of the existing parks in Hama as poor. They stated that they value public participation in the design process and acknowledged location and aesthetic issues as important design criteria. They demonstrated a considerable awareness of users' needs in the parks, and claimed that they accommodate these needs in their work, although they stressed some limitations.

Discussion

The findings from the social and spatial investigations are discussed in Chapter 7 and used to evaluate the qualities of the case studies and the processes used to design and maintain them. Hence, the chapter concludes by providing recommendations and suggestions for improving the quality of public open spaces in Hama.

The overriding recommendation at the city level is the provision of training programmes for those involved in the provision and maintenance processes which should enhance the quality of the delivery and the final product to satisfy residents'

needs and expectation. While the essential recommendation for improvement at the park level is to ensure the provision of good quality public facilities, which meet residents' needs.

8.3. Reflections

The focus of the research was guided by the researcher's initial observation of the use of some public open spaces in Hama, which motivated the researcher to investigate and explore this phenomenon. The residents in Hama were observed using some green open spaces, which were not parks, as parks. The research findings have revealed that the three studied parks could not be considered as having high quality, which goes some way to explaining the initial observation.

Successful good quality and well-used public open space is seen to be an essential requirement in any city around the world in providing the opportunities for a healthy life-style for its people. Public open space plays a significant role in providing social activities and interaction and in representing cultural values, which, in turn, help to produce a space full of social life and meaning. The complex nature of public open spaces and the interlinked relationships among their various qualities, namely the physical, social, perceptual, and functional qualities, demonstrate the value of a comprehensive approach, comprising both the spatial and the social patterns and their correlations, when evaluating and creating such spaces.

This research used the 'social spatial approach' based on a review of the relevant literature, as a strategic approach capable of providing a comprehensive underpinning of the examination of the quality of public open spaces in Hama. The adopted approach proved to be a highly practical strategy, which might be used in future research on public open spaces in Syria. The findings from the social study provided more data than the spatial study therefore it might be argued that further information about the physical structure of the city would have been beneficial. The findings reveal that the physical quality of parks is an important aspect for their use, for example in Al

Andalous Park, although it was highly accessible space it was not used well mainly because of its poor physical quality.

The case study method was adopted to gain holistic insights into the complex nature of public open space in Hama and to explore its social and spatial aspects. The main research question of *how to improve the quality of public open spaces in Hama* was investigated through this method, which entails in-depth analysis of the selected case study parks within their wider context.

The three selected case studies were parks, because the researcher's initial observations revealed that people are using open spaces such as roundabouts and street pavements as parks. However, the selection of the case studies might have included some of the green public open spaces along the banks of the Orontes River, because the findings of residents' perceptions showed that people are perceiving such spaces as parks. The selection criteria for the three case studies are believed to be valid because the topography of Hama, and the division of the city by the river has affected the distribution of public open space. Therefore, the need for case studies representing public open spaces in the city as a whole both near the river in the city centre area and away from the river in the outskirts was necessary to understand the use of a representative range of spaces in the city.

The results of the evaluation of Al Andalous Park revealed that the park is poorly used. The researcher assumed that another case study park, located outside the city centre and away from the river, could be used to check if the low number of users in Al Andalous Park is related to its location or related to its poor physical quality. However, as discussed in the selection criteria for the case studies there is no other park in the city, which has the same characteristics as Al Andalous Park. It is thought of as a city park by the local authorities, however its location and surroundings make it a local park in a residential area. Arguably, this comparison could be done by using one of the 'pocket sized' parks in a residential neighbourhood, although there might be an issue with respect to the size.

The next stage in this research was to examine the case studies and their context both socially and spatially using qualitative and quantitative techniques These techniques

comprised: a questionnaire survey with residents in Hama; observation and behavioural mapping in the parks; semi-structured interviews with professionals involved in the design and management process; land use and urban form surveys; space syntax applied at micro and macro scale; and a desk-top study of documents.

The questionnaire provided insightful knowledge about residents' perception of public open spaces and their preferences and needs. The number of respondents was 67 and although it is not a large number it is valid because of the nature of the open-ended questions, which provided more quality responses. However, it was a time consuming task analysing the huge amount of responses and their reasons, and with hindsight using software such as Nvivo for coding the data software would have been helpful.

Snowball technique was used to determine the group for the sample. During the informal interviews carried out for the pilot study in 2009, the researcher discovered that people were not happy to criticize the governmental process for public open spaces or to talk freely about their opinions of the quality of spaces they were using to a person they did not know they could trust. Therefore the researcher used the personal trust of her friends to start the sample and they used friends they could trust and so on. Although the snowballing technique does not provide a deliberately selected representative sample, it provided a representative picture of the area of residence in Hama distributed between the two main residential districts in the city, Al Hadir and Al Souk Districts. The 25-34 years age group was the dominant group while the over 65s had the fewest responses, therefore it can be argued that the sample is more representative of the younger members of the population and that a more detailed refinement would be necessary to expose the views of older inhabitants. The education level of the respondents and its relationship to the regular users of parks in the city would be another area which might be examined in more detail.

Observation and behavioural mapping techniques are recognised as effective tools in recording the real life activities that users are engaging in during their visits to public open spaces. Users' behaviour in the three parks was recorded according to their gender, however, this could have been further refined according to their age to explore any differences in the use of the spaces by children, teenagers, adults and senior

citizens. This division might be examined with respect to, for example, the provision of playgrounds and to assist in addressing anti-social behaviour. A finding from the residents' perception revealed the importance of Al Rabbee Festival in increasing the use of the parks in the city, therefore an observation survey might be carried out in May, during the festival, to explore the aspects that contribute to the increase in the use of the parks in the at that time.

The semi-structured interviews were a useful source of information especially for the review of the governance process, because there were no publications available in this area. The semi-structured questions allowed a level of flexibility in terms of adapting the asked questions according to the professionals' positions. The interviews were done with a small group of participants, 19 interviewees, and they were representative of the public and private sector. However, only two interviewees represent the private sector. On reflection, more interviews should have been conducted to validate the findings with representatives of the private sector.

The land use and urban form surveys provide an overview of the physical structure of Hama and the physical context of the case studies. Further refinement of inhabitants' perception of the urban form of the city might have been provided by applying Lynch's categories of the five physical elements (1960) and by using cognitive mapping. Furthermore, conducting a street frontage evaluation (Gehl, 2004) to assess the likely activity surrounding the parks could have enriched the findings of spatial study although the land use classification is extremely useful for this purpose.

Space syntax technique, the axial map, was an effective method in linking the integration values (accessibility values) of the spatial structure of Hama as a whole and the physical characteristics inside the selected parks with the findings of the observation and behaviour surveys. Some of the findings of the space syntax analyses (Al Qalaa Park) contrasts with Hillier's idea that a space has to be well integrated, with high accessibility in order to be well used, however, he does acknowledge that the presence of attractors can have a multiplier effect on the use and function of a space. (Hillier, 1996). The findings of the axial map analysis might have been investigated

further by comparing them with a pedestrian movement survey of the surrounding streets of each case study.

Nevertheless, despite the potential refinements suggested in the preceding paragraphs, the findings of this research remain valid, and provide a valuable contribution to the understanding of the quality of public open spaces in Hama. In response to the initial research question, *How can the quality of public open spaces in Hama be improved?* The main recommendations offer a way forward for the city. By enhancing the physical, social, functional, and perceptual qualities of public open spaces in the city along with an inclusive process for the design and management of these spaces, the city council would begin a process of improvement.

This research intends to make contributions to knowledge in several areas:

A contribution to international literature and knowledge by exploring the qualities of public open space in Hama, and connecting Hama with the growing stream of studies on the qualities of public open space and enriching the material available for international comparisons.

It is the first in-depth study to be conducted in Hama dealing with the quality of public open spaces in the city. The research provides empirical data on both the social and spatial quality of parks in Hama and on the design and management process of these spaces, which had not been previously collected and analysed. In addition, it interprets the data using standards drawn from current literature and against expectations expressed by the users to consider improvements.

Fragmented information about the city of Hama has been collated and used to provide a comprehensive review about the urban development of the city and evolution of the pubic open spaces in the city and their use over time.

8.4. Qualification

In this research there were a number of challenges and limitations, which were encountered during the investigation, some of which are described in the following paragraphs.

Writing the review of the urban development of Hama city was problematic because there was no resource or archive of historical documents and maps with text that the researcher could work from. Instead the rather fragmented literature on the history of Hama was used as a basis. Photographic and textual evidence tended to be separate and had to be brought together to provide a coherent review.

As with all work carried out and published in areas with different languages, there were issues related to the translation of the collected data[48]. Some of the words and concepts in Arabic could not be translated directly into the English language and the UK context, and therefore the researcher sometimes had to use alternative words and terms without changing the Arabic meaning.

During the interviews with professionals the researcher did face some difficulties, which resulted in them taking longer to complete than expected. These interviews took place in governmental departments, where some interviewees dealt with their daily work while answering the questions. Also, some of the interviews were cancelled and had to be re-arranged at very short notice, within the time frame of an already congested field visit.

Due to cultural considerations[49], it was unacceptable to photograph individuals or specific groups during the observation survey. This meant that general shots were

[48] Birbili (2000) points out that difficulties related to translation issues might happen during the research if the collected data was in a language that differ from the language that the findings are presented in. He argues that "Words which exist in one language but not in another, concepts which are not equivalent in different cultures, idiomatic expressions and/or differences among languages in grammatical and syntactical structures are issues which call for very specific decisions" (Birbili 2000 p 4).

[49] Due to the conservative society in Hama, taking photographs in public open spaces are not welcome by residents, particularly when they are with their families.

taken which showed some of the activities as part of a wider image rather than a detailed photograph of the activity.

Finally, the conflict in Syria has had an effect on the overall context of the country, the capacity of the researcher to confirm data, and on the writing of the thesis. The current situation has and will continue to affect the provision and use of public open spaces. Data that was correct at the time when the fieldtrips were conducted (2009, 2010, and 2011) may no longer be valid. The researcher was unable to return to Syria to carry out further investigations or confirm earlier work. Inevitably, the researcher was inhibited by the wider effects of the conflict both academically and personally.

8.5. Further research

As well as answering the initial research question, this thesis raises two obvious directions for further research.

a) This work investigates the quality of parks in Hama, therefore research could be done to explore the quality of other spaces in Hama, such as squares and plazas, to allow comparative studies with the findings of this thesis.

b) Due to the similarity among cities and certain regions in Syria, the recommendations for improving the quality of public open spaces in Hama may also be appropriate in other Syrian cities. Therefore research could be carried out to examine the applicability of these principles in other contexts in Syria.

8.6. Closing statement

The unrest which has taken place in Syria since 2011 might appear distant from the quality of public open spaces, however, the current situation of the country as a whole and particularly that of open spaces have deteriorated to an unprecedented level. Therefore, the need for comprehensive initiatives to repair the urban fabric of the

whole country will be essential once peace is reinstated, and part of this process will be focused on public open spaces.

The researcher believes that the findings of this work along with the suggested recommendations would provide a useful guide for future research on the quality of public open spaces and on the ways to improve them in Hama and more generally in Syria.

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Appendix A: The Pilot Study

The pilot study was conducted in August 2009 in order to obtain general insights into the built environment of Hama, and to understand the nature of its public open spaces. The aim was also to understand how residents in Hama use public open spaces generally and how they perceive these spaces. The techniques used in this study were participant observation; informal interviews with a number of the users of public open spaces in the city and with professionals in Hama City Council; and analysis of the physical structure of the city (Cullen's townscape serial vision).

Participant observation, which was undertaken in various locations in the city, revealed that that residents in Hama have a strong relationship with their public open spaces, especially those lying alongside the Orontes River and with a view of the 'Norias'. They prefer to spend most of their time outdoors engaging in their city spaces, especially when weather conditions are inviting, for example in spring and summer. Many people were observed outdoors, sitting in the available green public open spaces along the riverside, in some of the parks, and roundabouts, and even sometimes on street pavements. People were sitting in groups of families or friends, chatting, and sometimes eating and drinking. Moreover. Some of them were observed just standing, hanging around, and walking around. (Figure A.1)

(a) People sitting on the side of Ein Alouza Street

(b) People sitting on a pavement

(a) People sitting at Bahra Roundabout

(b) People sitting on the side of Al Kaylaneh Street

Figure A.1. The observed activities in various public open spaces in the city

In the informal interviews several questions were asked to users of the public open spaces in various locations in the city, particularly to people sitting in the roundabouts. The questions are:

Q1. How often do you visit a public open space?

Q2. What are the activities you like to do there?

Q3. What would you like to see in a public open space?

Q4. What do you find annoying here in the space?

Most of the interviewed users said they frequently visited the public open spaces on summer days, some of them every evening due to the hot weather, and to enjoy their time after a day of hard work. In regard to the activities, almost all of them stated that they just come to the space, sit down on the available seating places and bring some food and drinks. On the subject of the matters that annoyed them, users mentioned feeling frustrated with the lack of safety, the lack of comfort (available chairs and tables), and the poor quality of the available public facilities (cleanness and poor

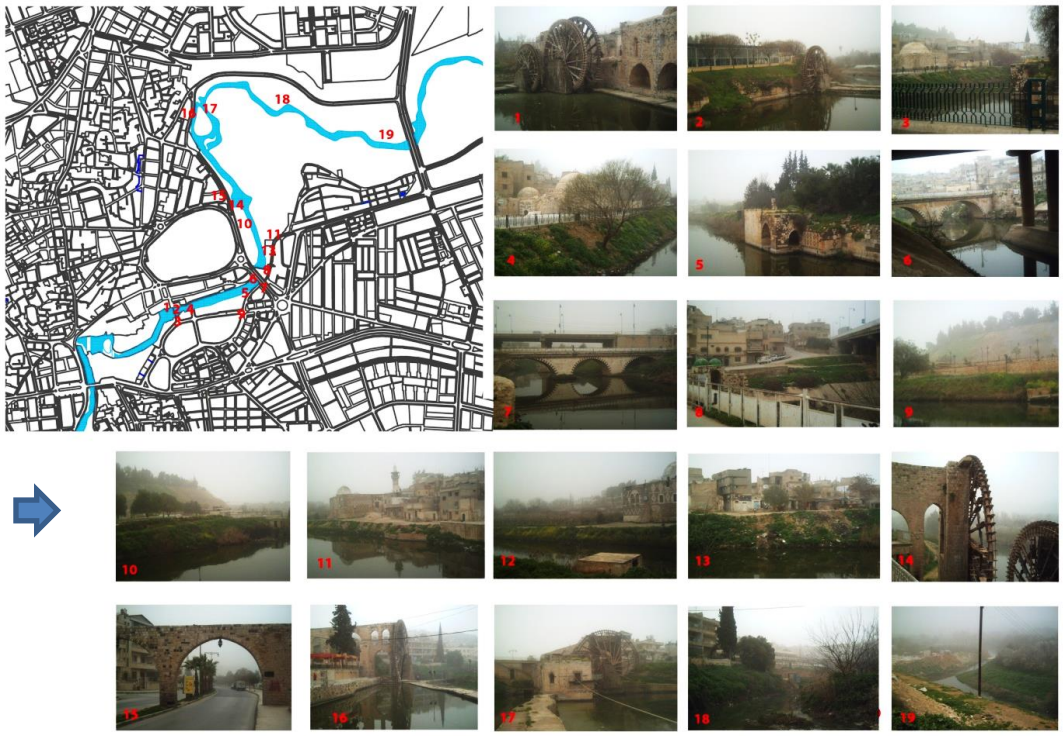
lighting). They reported that they would like more playgrounds for the children and better seating arrangements and to feel safe and secure in the place.

Three informal interviews were carried out with the head of Hama City Council (HCC), Director of the Technical Affairs Directorate and the Head of Department of Urban Organization. The intention was to explore the key actors involved in the provision and maintenance process of public open spaces in Hama. The head of HCC identified the different directorates and departments involved in designing, developing and managing public open spaces and explained the general relationships between them. The results of these interviews helped in selecting the interviewees of the semi-structured interviews; in addition, these results established the foundation for preparing the interview questions.

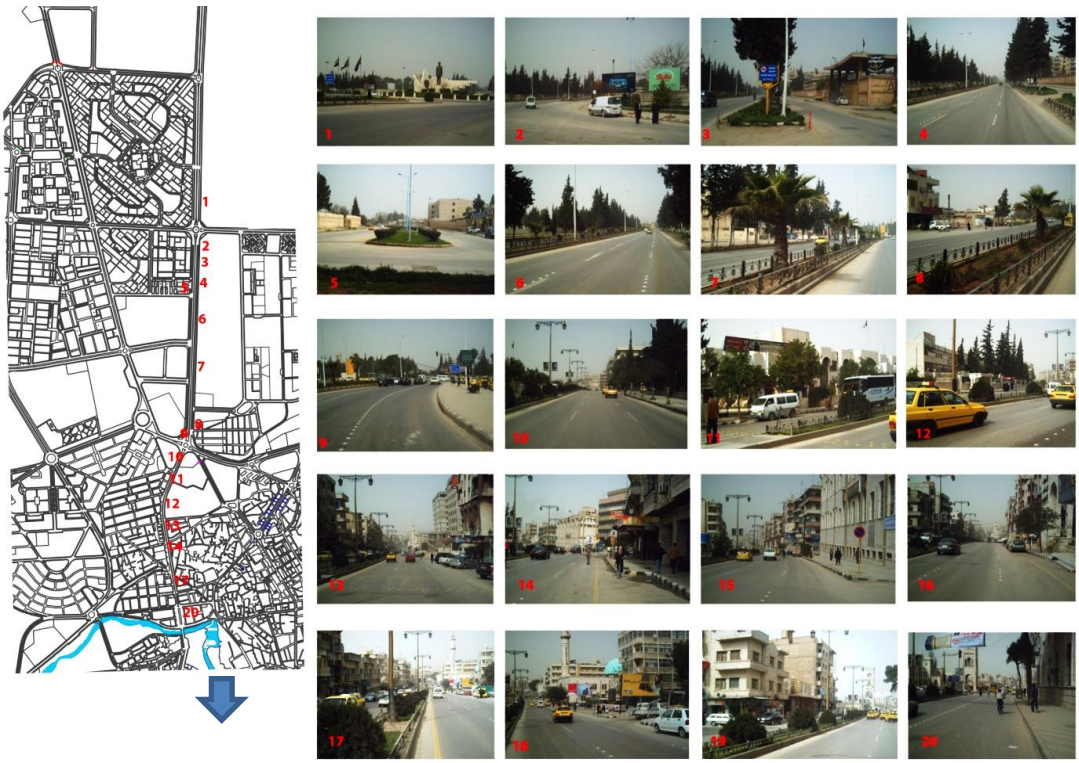
In terms of the spatial and physical structure of the city, the researcher has used an analytical technique to understand the nature of the spatial structure of the city and explore the possible potentials that the historic and natural elements in the city (the river and the Norias) would provide to enhance the quality of public open spaces in the city. Cullen's townscape serial vision was adopted at the early stage of this research to illustrate the main streets in the city and the spaces around the Orontes River. The serial vision technique was used to examine the relationship between sketches and plans which express the spatial qualities people perceive when moving through an area (Cullen, 1971). (See Figure A.2)

(a) Showing part of the main square in the city centre with shopping streets.

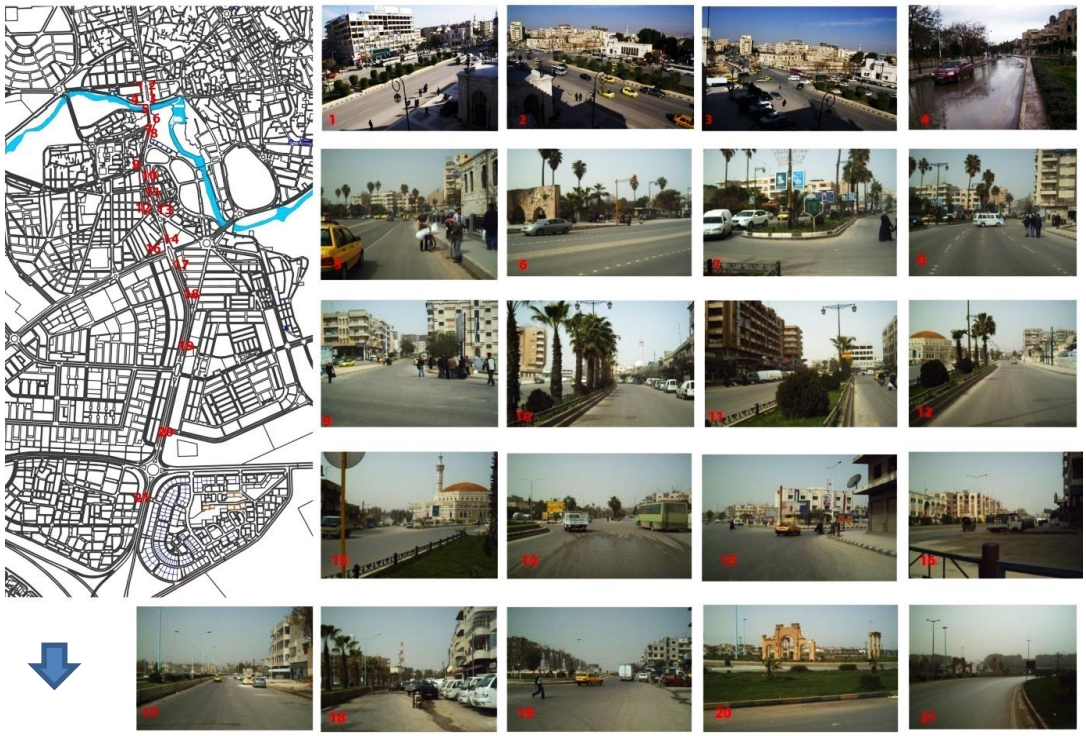
(b) Showing the spaces around the Orontes River from its start in Hama up to Al Qalaa Park



(c) Showing the spaces around the Orontes River from Al Qalaa Park up untill it leaves the city



(d) Showing the main street in Hama from south to North (1)



(e) Showing the main street in Hama city from south to North (2)

Figure 0.1 A.2 Serial vision of the main streets in the city and the spaces around the Orontes River

In summary, it was found that the techniques used in the pilot study were useful in terms of providing data about public open spaces in Hama. This data, in turn, would help in understanding the nature of the relationship between ‘people’ and ‘space’. Moreover, the findings of this study helped in preparing and conducting the actual empirical work of this research.

Appendix B: Questionnaire

Personal information:

Age:

Gender:

Occupation:

Education level:

Address or area:

Part one: General information about the city of Hama

Q1. Mention three places that contribute to the urban character of the city. Give two reasons for each choice.

1- ----------
2- ----------
3- ----------

Q2. Mention three important landmarks in the city. Give reasons why they are important.

1- ----------
2- ----------
3- ----------

Q3 List three things you wish to happen in the city to improve and enhance its status. Give reasons.

1- ----------
2- ----------
3- ----------

Part two: special information about the culture and social life in Hama city

Q4. Mention three important traditional activities people used to perform in the city, and which you would like to see maintained. Give two reasons for each choice.

1- ----------
2- ----------
3- ----------

Part three: information about the qualities and needs of users in public space.

Q5. Do you like being in a public park? Give two reasons.

1- ----------
2- ----------

Q6. How often do you visit a park? Give two reasons.

1- ----------
2- ----------

Q7. Mention three important parks in the city you most like. Give two reasons for each.

1- ----------
2- ----------
3- ----------

Q8. Mention three important parks in the city you don't like. Give two reasons for each.

1- ----------
2- ----------
3- ----------

Q9. How do you get there? By (bus, car, walking) Give two reasons.

1- ----------

2- ----------

Q10. What are the three important qualities or needs you require from a public space, which eventually encourage you to visit the space again?

1- ----------
2- ----------
3- ----------

Q11. Mention three activities you most like to do in a public park.

1- ----------
2- ----------
3- ----------

Q12. What are the three things that make you feel unsafe in a public park? Give two reasons.

1- ----------
2- ----------
3- ----------

Q13. Which places do you prefer to visit public parks or the privatized cafes and restaurants? Give two reasons.

1- ----------
2- ----------
3- ----------

Q14. Mention three things you would like to happen to improve the public parks. Give two reasons.

1- ----------
2- ----------
3- ----------

Q15. Mention three changes which have happened to the parks that you do not like. Give two reasons.

1- ----------
2- ----------
3- ----------

Q16. Mention three things in public parks from the past which you would like to have again. Give two reasons.

1- ----------
2- ----------
3- ----------

Arabic Version of the Questionnaire

أخي الفاضل, أختي الفاضلة :

تحية طيبة وبعد ....

أوجه هذه الرسالة لكم مرفقة بنسخة من استطلاع رأي كجزء من بحث علمي لنيل شهادة الدكتوراه, يعنى بتطوير الأماكن العامة وبشكل خاص الحدائق العامة في مدينة حماة, منطلقاً من رغبات وآراء الناس واحتياجاتهم لجعل هذه الأماكن أكثر حيويةً ونشاطاً.

ومن خلال هذا الاستبيان سيتم تحديد الخصائص الايجابية الحالية وتطويرها والخصائص السلبية واقتراح الحلول المناسبة لها, مما يساهم في تفعيل هذه الأماكن.

لذلك أرجو التأكد من الإجابة على كافة الأسئلة حتى يتحقق الهدف المرجو من هذه الدراسة. كما أود أن أنوه أن جميع المعلومات التي سيدلى بها في هذا الاستبيان ستستخدم في البحث العلمي فقط.

شاكرين لكم تعاونكم, وتفضلوا بقبول وافر التحية والاحترام.

إيمان عبد القادر الصمصام
باحثة دراسات عليا
جامعة إدنبرة للفنون
كلية العمارة
إدنبرة – بريطانيا

تموز 2010

استبيان عن رغبات و آراء الناس في النواحي التصميمية والنوعية والوظيفية للأماكن العامة في مدينة حماة

خطوات توضيحية للإجابة على الأسئلة :

- يرجى قراءة الاستبيان كاملاً قبل الشروع بالإجابة على الأسئلة.
- يرجى الإجابة على كافة الأسئلة مع ذكر الأسباب.

معلومات شخصية :

الاسم (اختياري) : .....

العمر : .....

الجنس : ☐ ذكر ☐ أنثى

الوضع المهني : .....

المستوى العلمي : .....

العنوان \ المنطقة : .....

مدة الإقامة في حماة : .....

القسم الأول: معلومات عامة عن مدينة حماة

1. ما هي برأيك الأماكن التي ساهمت بإعطاء مدينة حماة شخصيتها العمرانية , مبينا سببين لاختيار كل مكان .

المكان الأول: .....

السبب الأول: .....

السبب الثاني: .....

المكان الثاني: .....

السبب الأول: .....

السبب الثاني .....

المكان الثالث.....

السبب الأول: .....

السبب الثاني: .....

2. اذكر ثلاثة من أهم المعالم البارزة المهمة في المدينة, مبيناً سببين لكل مكان موضحاً أهميته.

المعلم الأول: .....

السبب الأول: .....

السبب الثاني: .....

المعلم الثاني:.....

السبب الأول: .....

السبب الثاني .....

المعلم الثالث .....

السبب الأول: .....

السبب الثاني: .....

3. اقترح ثلاثة أمور تتمنى أن تحدث في المدينة من أجل تطورها وتحسين وضعها العام , مبيناً سببين لكل أمر موضحاً أهميته.

1. .....

السبب الأول:.....

السبب الثاني:.....

2. .....

السبب الأول: .....

السبب الثاني .....

3. .....

السبب الأول:.....

السبب الثاني:.....

القسم الثاني: معلومات خاصة عن الثقافة و الحياة الأجتماعية في مدينة حماة

4. اذكر ثلاثة من أهم الأنشطة التقليدية التي اعتاد الناس أن يمارسوها في المدينة , والتي ترغب أن تراها مستمرة , مبينا سبب لكل فعالية\ تقليد موضحاً أهميته.

الفعالية\ التقليد الأول: .....

السبب:.....

الفعالية\ التقليد الثاني:.....

السبب:.....

الفعالية\ التقليد الثالث:.....

السبب:.....

القسم الثالث : معلومات عن احتياجات الناس و عن جودة الأماكن العامة

5. هل ترغب بأن تجلس في أحد الحدائق العامة في المدينة؟ اذكر سببين موضحاً ذلك.

☐ نعم ☐ لا

السبب الأول:.....

السبب الثاني:.....

6. كم مرة غالباً تقوم بزيارة هذه الحدائق؟ اذكر سببين موضحاً ذلك.

السبب الأول:.....

السبب الثاني:.....

7. ما هي أفضل ثلاثة حدائق عامة في المدينة بحسب رأيك؟ مبيناً سببين لكل مكان موضحاً أهميته.

المكان الأول: .....

السبب الأول: .....

السبب الثاني: .....

المكان الثاني: .....

السبب الأول: .....

السبب الثاني .....

المكان الثالث.....

السبب الأول: .....

السبب الثاني: .....

8. ما هي أسوأ ثلاثة حدائق عامة في المدينة بحسب رأيك؟ مبيناً سببين لكل مكان موضحاً ذلك.

المكان الأول: .....

السبب الأول: .....

السبب الثاني: .....

المكان الثاني : .....

السبب الأول: .....

السبب الثاني .....

المكان الثالث.....

السبب الأول: .....

السبب الثاني: .....

9. كيف تذهب إلى الحدائق العامة؟ اذكر سببين موضحاً اختيارك.

نقل عام ☐ سيارة ☐ مشي ☐

السبب الأول: .....

السبب الثاني: .....

10. برأيك الشخصي ما هي أهم ثلاثة مواصفات أو احتياجات يجب أن تتوفر في الحدائق العامة مما يشجعك على العودة مرة ثانية, مبيناً سببين لكل خيار و موضحاً الأهمية.

1. .....

السبب الأول: .....

السبب الثاني: .....

2. .....
السبب الأول: .....

السبب الثاني: .....

3. .....
السبب الأول: .....

السبب الثاني: .....

11. ما الذي ترغب فعله في الحدائق العامة ؟

1. .....
2. .....
3. .....

12. ما الذي يجعلك تشعر بعدم الأمان في الحدائق العامة ؟ وضح سببين لذلك.

1. .....
السبب الأول:.....

السبب الثاني:.....

2. .....
السبب الأول: .....

السبب الثاني .....

3. .....
السبب الأول:.....

السبب الثاني:.....

13. أي من الأماكن التالية تفضل زيارتها؟ اذكر سببين للمكان الذي تختاره موضحاً أهميته.

كافيتريا ☐ مطعم ☐ حديقة عامة ☐

السبب الأول: .....

السبب الثاني: .....

14. اذكر ثلاثة أشياء تفضل أن تحدث في الحدائق العامة من أجل تطويرها, مبيناً سببين و موضحاً أهميته.

1. .....

السبب الأول: .....

السبب الثاني:.....

2. .....
السبب الأول: .....

السبب الثاني .....

3. .....
السبب الأول: .....

السبب الثاني: .....

15. هل ترى تغيرات حصلت مؤخرا في الحدائق العامة لا تعتبرها جيدة ؟ مبيناً سببين لكل تغيير.

1. .....
السبب الأول: .....

السبب الثاني: .....

2. .....
السبب الأول: .....

السبب الثاني .....

3. .....
السبب الأول: .....

السبب الثاني: .....

16. اذكر ثلاثة أشياء كانت في الماضي موجودة في الحدائق العامة ولم تعد موجودة الآن و أنت ترغب بأن تكون موجودة من جديد, مبيناً سببين لكل شيء موضحاً أهميته.

1. .....
السبب الأول: .....

السبب الثاني: .....

2. .....
السبب الأول: .....

السبب الثاني .....

3. .....

السبب الأول: .....

السبب الثاني: .....

Appendix C: Semi-Structured Interview Questions

C.1. Product:

- How do you perceive the quality of the existing parks in the city? Give reasons.
- What are the negative and positive features of these parks in terms of use and facilities?
- Mention three parks you believe are successful parks in the city. Give reasons.
- Mention three parks you believe are unsuccessful parks in the city, Give reasons and mention ways to improve them according to your experience.
- What are the most important design criteria considered when designing a park? And why do you believe these criteria are important?
- To what extent do you believe that public participation is beneficial in the design and maintenances process? And why?
- Are there any maintenance programmes for the parks? If yes explain them; if not why?
- What do you think about the privatisation of some of the public open spaces in the city?

C.2. Process:

- Who are the actors involved in the design and maintenance process of public open spaces in the city?

- What are the legislation and policies that govern the provision of public open spaces (particularly parks) in the city?

- What are the responsibilities and roles of your directorate/department/organisation in this process?

- Is there an adequate collaboration between the involved actors? If not why?

- At what level or stage are you involved in the provision and maintenance process of public parks in the city? In design, maintenance, implementation, and/or surveillance?

- What is your opinion about the design and maintenance process of these parks?

Finally would you like to add anything that would help the research through your experience?